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<110> Fishman, Mark C. and Xu, Xiaolei

<120> Methods for Diagnosing and Treating
Heart Disease

<130> 00786/381003

<140> US 10/656,873

<141> 2003-09-05

<150> US 09/759,508

<151> 2001-01-12

<150> US 60/175,787

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Ile	Thr	Phe	Gln	Ser	Gly	Ile	Ala	Arg	Leu	Met	Ile	Arg	Glu	Ala	Phe			
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Ala	Glu	Asp	Ser	Gly	Arg	Phe	Thr	Cys	Ser	Ala	Val	Asn	Glu	Ala	Gly			
				965					970					975				
Thr	Val	Ser	Thr	Ser	Cys	Tyr	Leu	Ala	Val	Gln	Val	Ser	Glu	Glu	Phe			
			980					985					990					
Glu	Lys	Glu	Thr	Thr	Ala	Val	Thr	Glu	Lys	Phe	Thr	Thr	Glu	Glu	Lys			
			995				1000					1005						
Arg	Phe	Val	Glu	Ser	Arg	Asp	Val	Val	Met	Thr	Asp	Thr	Ser	Leu	Thr			
	1010					1015					1020							
Glu	Glu	Gln	Ala	Gly	Pro	Gly	Glu	Pro	Ala	Ala	Pro	Tyr	Phe	Ile	Thr			
1025					1030					1035					1040			

Lys Pro Val Val Gln Lys Leu Val Glu Gly Gly Ser Val Val Phe Gly
 1045 1050 1055
 Cys Gln Val Gly Gly Asn Pro Lys Pro His Val Tyr Trp Lys Lys Ser
 1060 1065 1070
 Gly Val Pro Leu Thr Thr Gly Tyr Arg Tyr Lys Val Ser Tyr Asn Lys
 1075 1080 1085
 Gln Thr Gly Glu Cys Lys Leu Val Ile Ser Met Thr Phe Ala Asp Asp
 1090 1095 1100
 Ala Gly Glu Tyr Thr Ile Val Val Arg Asn Lys His Gly Glu Thr Ser
 1105 1110 1115 1120
 Ala Ser Ala Ser Leu Leu Glu Glu Ala Asp Tyr Glu Leu Leu Met Lys
 1125 1130 1135
 Ser Gln Gln Glu Met Leu Tyr Gln Thr Gln Val Thr Ala Phe Val Gln
 1140 1145 1150
 Glu Pro Glu Val Gly Glu Thr Ala Pro Gly Phe Val Tyr Ser Glu Tyr
 1155 1160 1165
 Glu Lys Glu Tyr Glu Lys Glu Gln Ala Leu Ile Arg Lys Lys Met Ala
 1170 1175 1180
 Lys Asp Thr Val Val Val Arg Thr Tyr Val Glu Asp Gln Glu Phe His
 1185 1190 1195 1200
 Ile Ser Ser Phe Glu Glu Arg Leu Ile Lys Glu Ile Glu Tyr Arg Ile
 1205 1210 1215
 Ile Lys Thr Thr Leu Glu Glu Leu Leu Glu Glu Asp Gly Glu Glu Lys
 1220 1225 1230
 Met Ala Val Asp Ile Ser Glu Ser Glu Ala Val Glu Ser Gly Phe Asp
 1235 1240 1245
 Leu Arg Ile Lys Asn Tyr Arg Ile Leu Glu Gly Met Gly Val Thr Phe
 1250 1255 1260
 His Cys Lys Met Ser Gly Tyr Pro Leu Pro Lys Ile Ala Trp Tyr Lys
 1265 1270 1275 1280
 Asp Gly Lys Arg Ile Lys His Gly Glu Arg Tyr Gln Met Asp Phe Leu
 1285 1290 1295
 Gln Asp Gly Arg Ala Ser Leu Arg Ile Pro Val Val Leu Pro Glu Asp
 1300 1305 1310
 Glu Gly Ile Tyr Thr Ala Phe Ala Ser Asn Ile Lys Gly Asn Ala Ile
 1315 1320 1325
 Cys Ser Gly Lys Leu Tyr Val Glu Pro Ala Ala Pro Leu Gly Ala Pro
 1330 1335 1340
 Thr Tyr Ile Pro Thr Leu Glu Pro Val Ser Arg Ile Arg Ser Leu Ser
 1345 1350 1355 1360
 Pro Arg Ser Val Ser Arg Ser Pro Ile Arg Met Ser Pro Ala Arg Met
 1365 1370 1375
 Ser Pro Ala Arg Met Ser Pro Ala Arg Met Ser Pro Ala Arg Met Ser
 1380 1385 1390
 Pro Gly Arg Arg Leu Glu Glu Thr Asp Glu Ser Gln Leu Glu Arg Leu
 1395 1400 1405
 Tyr Lys Pro Val Phe Val Leu Lys Pro Val Ser Phe Lys Cys Leu Glu
 1410 1415 1420
 Gly Gln Thr Ala Arg Phe Asp Leu Lys Val Val Gly Arg Pro Met Pro
 1425 1430 1435 1440
 Glu Thr Phe Trp Phe His Asp Gly Gln Gln Ile Val Asn Asp Tyr Thr
 1445 1450 1455
 His Lys Val Val Ile Lys Glu Asp Gly Thr Gln Ser Leu Ile Ile Val
 1460 1465 1470
 Pro Ala Thr Pro Ser Asp Ser Gly Glu Trp Thr Val Val Ala Gln Asn
 1475 1480 1485
 Arg Ala Gly Arg Ser Ser Ile Ser Val Ile Leu Thr Val Glu Ala Val
 1490 1495 1500
 Glu His Gln Val Lys Pro Met Phe Val Glu Lys Leu Lys Asn Val Asn

1505		1510		1515		1520
Ile Lys Glu Gly Ser Arg Leu Glu Met Lys Val Arg Ala Thr Gly Asn						
	1525		1530			1535
Pro Asn Pro Asp Ile Val Trp Leu Lys Asn Ser Asp Ile Ile Val Pro						
	1540		1545			1550
His Lys Tyr Pro Lys Ile Arg Ile Glu Gly Thr Lys Gly Glu Ala Ala						
	1555		1560			1565
Leu Lys Ile Asp Ser Thr Val Ser Gln Asp Ser Ala Trp Tyr Thr Ala						
	1570		1575			1580
Thr Ala Ile Asn Lys Ala Gly Arg Asp Thr Thr Arg Cys Lys Val Asn						
1585		1590		1595		1600
Val Glu Val Glu Phe Ala Glu Pro Glu Pro Glu Arg Lys Leu Ile Ile						
	1605		1610			1615
Pro Arg Gly Thr Tyr Arg Ala Lys Glu Ile Ala Ala Pro Glu Leu Glu						
	1620		1625			1630
Pro Leu His Leu Arg Tyr Gly Gln Glu Gln Trp Glu Glu Gly Asp Leu						
	1635		1640			1645
Tyr Asp Lys Glu Lys Gln Gln Lys Pro Phe Phe Lys Lys Lys Leu Thr						
	1650		1655			1660
Ser Leu Arg Leu Lys Arg Phe Gly Pro Ala His Phe Glu Cys Arg Leu						
1665		1670		1675		1680
Thr Pro Ile Ser Asp Pro Thr Met Val Val Glu Trp Leu His Asp Gly						
	1685		1690			1695
Lys Pro Leu Glu Ala Ala Asn Arg Leu Arg Met Ile Asn Glu Phe Gly						
	1700		1705			1710
Tyr Cys Ser Leu Asp Tyr Gly Val Ala Tyr Ser Arg Asp Ser Gly Ile						
	1715		1720			1725
Ile Thr Cys Arg Ala Thr Asn Lys Tyr Gly Thr Asp His Thr Ser Ala						
	1730		1735			1740
Thr Leu Ile Val Lys Asp Glu Lys Ser Leu Val Glu Glu Ser Gln Leu						
1745		1750		1755		1760
Pro Glu Gly Arg Lys Gly Leu Gln Arg Ile Glu Glu Leu Glu Arg Met						
	1765		1770			1775
Ala His Glu Gly Ala Leu Thr Gly Val Thr Thr Asp Gln Lys Glu Lys						
	1780		1785			1790
Gln Lys Pro Asp Ile Val Leu Tyr Pro Glu Pro Val Arg Val Leu Glu						
	1795		1800			1805
Gly Glu Thr Ala Arg Phe Arg Cys Arg Val Thr Gly Tyr Pro Gln Pro						
	1810		1815			1820
Lys Val Asn Trp Tyr Leu Asn Gly Gln Leu Ile Arg Lys Ser Lys Arg						
1825		1830		1835		1840
Phe Arg Val Arg Tyr Asp Gly Ile His Tyr Leu Asp Ile Val Asp Cys						
	1845		1850			1855
Lys Ser Tyr Asp Thr Gly Glu Val Lys Val Thr Ala Glu Asn Pro Glu						
	1860		1865			1870
Gly Val Ile Glu His Lys Val Lys Leu Glu Ile Gln Gln Arg Glu Asp						
	1875		1880			1885
Phe Arg Ser Val Leu Arg Arg Ala Pro Glu Pro Arg Pro Glu Phe His						
	1890		1895			1900
Val His Glu Pro Gly Lys Leu Gln Phe Glu Val Gln Lys Val Asp Arg						
1905		1910		1915		1920
Pro Val Asp Thr Thr Glu Thr Lys Glu Val Val Lys Leu Lys Arg Ala						
	1925		1930			1935
Glu Arg Ile Thr His Glu Lys Val Pro Glu Glu Ser Glu Glu Leu Arg						
	1940		1945			1950
Ser Lys Phe Lys Arg Arg Thr Glu Glu Gly Tyr Tyr Glu Ala Ile Thr						
	1955		1960			1965
Ala Val Glu Leu Lys Ser Arg Lys Lys Asp Glu Ser Tyr Glu Glu Leu						
	1970		1975			1980

Leu	Arg	Lys	Thr	Lys	Asp	Glu	Leu	Leu	His	Trp	Thr	Lys	Glu	Leu	Thr	1985	1990	1995	2000
Glu	Glu	Glu	Lys	Lys	Ala	Leu	Ala	Glu	Glu	Gly	Lys	Ile	Thr	Ile	Pro		2005	2010	2015
Thr	Phe	Lys	Pro	Asp	Lys	Ile	Glu	Leu	Ser	Pro	Ser	Met	Glu	Ala	Pro		2020	2025	2030
Lys	Ile	Phe	Glu	Arg	Ile	Gln	Ser	Gln	Thr	Val	Gly	Gln	Gly	Ser	Asp		2035	2040	2045
Ala	His	Phe	Arg	Val	Arg	Val	Val	Gly	Lys	Pro	Asp	Pro	Glu	Cys	Glu		2050	2055	2060
Trp	Tyr	Lys	Asn	Gly	Val	Lys	Ile	Glu	Arg	Ser	Asp	Arg	Ile	Tyr	Trp	2065	2070	2075	2080
Tyr	Trp	Pro	Glu	Asp	Asn	Val	Cys	Glu	Leu	Val	Ile	Arg	Asp	Val	Thr		2085	2090	2095
Ala	Glu	Asp	Ser	Ala	Ser	Ile	Met	Val	Lys	Ala	Ile	Asn	Ile	Ala	Gly		2100	2105	2110
Glu	Thr	Ser	Ser	His	Ala	Phe	Leu	Leu	Val	Gln	Ala	Lys	Gln	Leu	Ile		2115	2120	2125
Thr	Phe	Thr	Gln	Glu	Leu	Gln	Asp	Val	Val	Ala	Lys	Glu	Lys	Asp	Thr		2130	2135	2140
Met	Ala	Thr	Phe	Glu	Cys	Glu	Thr	Ser	Glu	Pro	Phe	Val	Lys	Val	Lys	2145	2150	2155	2160
Trp	Tyr	Lys	Asp	Gly	Met	Glu	Val	His	Glu	Gly	Asp	Lys	Tyr	Arg	Met		2165	2170	2175
His	Ser	Asp	Arg	Lys	Val	His	Phe	Leu	Ser	Ile	Leu	Thr	Ile	Asp	Thr		2180	2185	2190
Ser	Asp	Ala	Glu	Asp	Tyr	Ser	Cys	Val	Leu	Val	Glu	Asp	Glu	Asn	Val		2195	2200	2205
Lys	Thr	Thr	Ala	Lys	Leu	Ile	Val	Glu	Gly	Ala	Val	Val	Glu	Phe	Val		2210	2215	2220
Lys	Glu	Leu	Gln	Asp	Ile	Glu	Val	Pro	Glu	Ser	Tyr	Ser	Gly	Glu	Leu	2225	2230	2235	2240
Glu	Cys	Ile	Val	Ser	Pro	Glu	Asn	Ile	Glu	Gly	Lys	Trp	Tyr	His	Asn		2245	2250	2255
Asp	Val	Glu	Leu	Lys	Ser	Asn	Gly	Lys	Tyr	Thr	Ile	Thr	Ser	Arg	Arg		2260	2265	2270
Gly	Arg	Gln	Asn	Leu	Thr	Val	Lys	Asp	Val	Thr	Lys	Glu	Asp	Gln	Gly		2275	2280	2285
Glu	Tyr	Ser	Phe	Val	Ile	Asp	Gly	Lys	Lys	Thr	Thr	Cys	Lys	Leu	Lys		2290	2295	2300
Met	Lys	Pro	Arg	Pro	Ile	Ala	Ile	Leu	Gln	Gly	Leu	Ser	Asp	Gln	Lys	2305	2310	2315	2320
Val	Cys	Glu	Gly	Asp	Ile	Val	Gln	Leu	Glu	Val	Lys	Val	Ser	Leu	Glu		2325	2330	2335
Ser	Val	Glu	Gly	Val	Trp	Met	Lys	Asp	Gly	Gln	Glu	Val	Gln	Pro	Ser		2340	2345	2350
Asp	Arg	Val	His	Ile	Val	Ile	Asp	Lys	Gln	Ser	His	Met	Leu	Leu	Ile		2355	2360	2365
Glu	Asp	Met	Thr	Lys	Glu	Asp	Ala	Gly	Asn	Tyr	Ser	Phe	Thr	Ile	Pro		2370	2375	2380
Ala	Leu	Gly	Leu	Ser	Thr	Ser	Gly	Arg	Val	Ser	Val	Tyr	Ser	Val	Asp	2385	2390	2395	2400
Val	Ile	Thr	Pro	Leu	Lys	Asp	Val	Asn	Val	Ile	Glu	Gly	Thr	Lys	Ala		2405	2410	2415
Val	Leu	Glu	Cys	Lys	Val	Ser	Val	Pro	Asp	Val	Thr	Ser	Val	Lys	Trp		2420	2425	2430
Tyr	Leu	Asn	Asp	Glu	Gln	Ile	Lys	Pro	Asp	Asp	Arg	Val	Gln	Ala	Ile		2435	2440	2445
Val	Lys	Gly	Thr	Lys	Gln	Arg	Leu	Val	Ile	Asn	Arg	Thr	His	Ala	Ser				

2450	2455	2460
Asp Glu Gly Pro Tyr Lys Leu Ile Val Gly Arg Val Glu Thr Asn Cys		
2465	2470	2475
Asn Leu Ser Val Glu Lys Ile Lys Ile Ile Arg Gly Leu Arg Asp Leu		2480
	2485	2490
Thr Cys Thr Glu Thr Gln Asn Val Val Phe Glu Val Glu Leu Ser His		2495
	2500	2505
Ser Gly Ile Asp Val Leu Trp Asn Phe Lys Asp Lys Glu Ile Lys Pro		2510
	2515	2520
Ser Ser Lys Tyr Lys Ile Glu Ala His Gly Lys Ile Tyr Lys Leu Thr		2525
	2530	2535
Val Leu Asn Met Met Lys Asp Asp Glu Gly Lys Tyr Thr Phe Tyr Ala		2540
2545	2550	2555
Gly Glu Asn Met Thr Ser Gly Lys Leu Thr Val Ala Gly Gly Ala Ile		2560
	2565	2570
Ser Lys Pro Leu Thr Asp Gln Thr Val Ala Glu Ser Gln Glu Ala Val		2575
	2580	2585
Phe Glu Cys Glu Val Ala Asn Pro Asp Ser Lys Gly Glu Trp Leu Arg		2590
	2595	2600
Asp Gly Lys His Leu Pro Leu Thr Asn Asn Ile Arg Ser Glu Ser Asp		2605
2610	2615	2620
Gly His Lys Arg Arg Leu Ile Ile Ala Ala Thr Lys Leu Asp Asp Ile		2625
2625	2630	2635
Gly Glu Tyr Thr Tyr Lys Val Ala Thr Ser Lys Thr Ser Ala Lys Leu		2640
	2645	2650
Lys Val Glu Ala Val Lys Ile Lys Lys Thr Leu Lys Asn Leu Thr Val		2655
	2660	2665
Thr Glu Thr Gln Asp Ala Val Phe Thr Val Glu Leu Thr His Pro Asn		2670
	2675	2680
Val Lys Gly Val Gln Trp Ile Lys Asn Gly Val Val Leu Glu Ser Asn		2685
2690	2695	2700
Glu Lys Tyr Ala Ile Ser Val Lys Gly Thr Ile Tyr Ser Leu Arg Ile		2705
	2710	2715
Lys Asn Cys Ala Ile Val Asp Glu Ser Val Tyr Gly Phe Arg Leu Gly		2720
	2725	2730
Arg Leu Gly Ala Ser Ala Arg Leu His Val Glu Thr Val Lys Ile Ile		2735
	2740	2745
Lys Lys Pro Lys Asp Val Thr Ala Leu Glu Asn Ala Thr Val Ala Phe		2750
	2755	2760
Glu Val Ser Val Ser His Asp Thr Val Pro Val Lys Trp Phe His Lys		2765
2770	2775	2780
Ser Val Glu Ile Lys Pro Ser Asp Lys His Arg Leu Val Ser Glu Arg		2785
2785	2790	2795
Lys Val His Lys Leu Met Leu Gln Asn Ile Ser Pro Ser Asp Ala Gly		2800
	2805	2810
Glu Tyr Thr Ala Val Val Gly Gln Leu Glu Cys Lys Ala Lys Leu Phe		2815
	2820	2825
Val Glu Thr Leu His Ile Thr Lys Thr Met Lys Asn Ile Glu Val Pro		2830
	2835	2840
Glu Thr Lys Thr Ala Ser Phe Glu Cys Glu Val Ser His Phe Asn Val		2845
2850	2855	2860
Pro Ser Met Trp Leu Lys Asn Gly Val Glu Ile Glu Met Ser Glu Lys		2865
2865	2870	2875
Phe Lys Ile Val Val Gln Gly Lys Leu His Gln Leu Ile Ile Met Asn		2880
	2885	2890
Thr Ser Thr Glu Asp Ser Ala Glu Tyr Thr Phe Val Cys Gly Asn Asp		2895
	2900	2905
Gln Val Ser Ala Thr Leu Thr Val Thr Pro Ile Met Ile Thr Ser Met		2910
	2915	2920
		2925

Leu Lys Asp Ile Asn Ala Glu Glu Lys Asp Thr Ile Thr Phe Glu Val
 2930 2935 2940
 Thr Val Asn Tyr Glu Gly Ile Ser Tyr Lys Trp Leu Lys Asn Gly Val
 2945 2950 2955 2960
 Glu Ile Lys Ser Thr Asp Lys Cys Gln Met Arg Thr Lys Lys Leu Thr
 2965 2970 2975
 His Ser Leu Asn Ile Arg Asn Val His Phe Gly Asp Ala Ala Asp Tyr
 2980 2985 2990
 Thr Phe Val Ala Gly Lys Ala Thr Ser Thr Ala Thr Leu Tyr Val Glu
 2995 3000 3005
 Ala Arg His Ile Glu Phe Arg Lys His Ile Lys Asp Ile Lys Val Leu
 3010 3015 3020
 Glu Lys Lys Arg Ala Met Phe Glu Cys Glu Val Ser Glu Pro Asp Ile
 3025 3030 3035 3040
 Thr Val Gln Trp Met Lys Asp Asp Gln Glu Leu Gln Ile Thr Asp Arg
 3045 3050 3055
 Ile Lys Ile Gln Lys Glu Lys Tyr Val His Arg Leu Leu Ile Pro Ser
 3060 3065 3070
 Thr Arg Met Ser Asp Ala Gly Lys Tyr Thr Val Val Ala Gly Gly Asn
 3075 3080 3085
 Val Ser Thr Ala Lys Leu Phe Val Glu Gly Arg Asp Val Arg Ile Arg
 3090 3095 3100
 Ser Ile Lys Lys Glu Val Gln Val Ile Glu Lys Gln Arg Ala Val Val
 3105 3110 3115 3120
 Glu Phe Glu Val Asn Glu Asp Asp Val Asp Ala His Trp Tyr Lys Asp
 3125 3130 3135
 Gly Ile Glu Ile Asn Phe Gln Val Gln Glu Arg His Lys Tyr Val Val
 3140 3145 3150
 Glu Arg Arg Ile His Arg Met Phe Ile Ser Glu Thr Arg Gln Ser Asp
 3155 3160 3165
 Ala Gly Glu Tyr Thr Phe Val Ala Gly Arg Asn Arg Ser Ser Val Thr
 3170 3175 3180
 Leu Tyr Val Asn Ala Pro Glu Pro Pro Gln Val Leu Gln Glu Leu Gln
 3185 3190 3195 3200
 Pro Val Thr Val Gln Ser Gly Lys Pro Ala Arg Phe Cys Ala Met Ile
 3205 3210 3215
 Ser Gly Arg Pro Gln Pro Lys Ile Ser Trp Tyr Lys Glu Glu Gln Leu
 3220 3225 3230
 Leu Ser Thr Gly Phe Lys Cys Lys Phe Leu His Asp Gly Gln Glu Tyr
 3235 3240 3245
 Thr Leu Leu Ile Glu Ala Phe Pro Glu Asp Ala Ala Val Tyr Thr
 3250 3255 3260
 Cys Glu Ala Lys Asn Asp Tyr Gly Val Ala Thr Thr Ser Ala Ser Leu
 3265 3270 3275 3280
 Ser Val Glu Val Pro Glu Val Val Ser Pro Asp Gln Glu Met Pro Val
 3285 3290 3295
 Tyr Pro Pro Ala Ile Ile Thr Pro Leu Gln Asp Thr Val Thr Ser Glu
 3300 3305 3310
 Gly Gln Pro Ala Arg Phe Gln Cys Arg Val Ser Gly Thr Asp Leu Lys
 3315 3320 3325
 Val Ser Trp Tyr Ser Lys Asp Lys Lys Ile Lys Pro Ser Arg Phe Phe
 3330 3335 3340
 Arg Met Thr Gln Phe Glu Asp Thr Tyr Gln Leu Glu Ile Ala Glu Ala
 3345 3350 3355 3360
 Tyr Pro Glu Asp Glu Gly Thr Tyr Thr Phe Val Ala Asn Asn Ala Val
 3365 3370 3375
 Gly Gln Val Ser Ser Thr Ala Asn Leu Ser Leu Glu Ala Pro Glu Ser
 3380 3385 3390
 Ile Leu His Glu Arg Ile Glu Gln Glu Ile Glu Met Glu Met Lys Glu

	3395		3400		3405
Phe	Ser Ser Ser	Phe Leu Ser	Ala Glu Glu Glu	Gly Leu His	Ser Ala
	3410		3415		3420
Glu	Leu Gln Leu	Ser Lys Ile	Asn Glu Thr	Leu Glu Leu	Leu Ser Glu
3425		3430		3435	3440
Ser	Pro Val Tyr	Pro Thr Lys	Phe Asp Ser	Glu Lys Glu	Gly Thr Gly
		3445		3450	3455
Pro	Ile Phe Ile	Lys Glu Val	Ser Asn Ala	Asp Ile Ser	Met Gly Asp
		3460		3465	3470
Val	Ala Thr Leu	Ser Val Thr	Val Ile Gly	Ile Pro Lys	Pro Lys Ile
		3475		3480	3485
Gln	Trp Phe Phe	Asn Gly Val	Leu Leu Thr	Pro Ser Ala	Asp Tyr Lys
		3490		3495	3500
Phe	Val Phe Asp	Gly Asp Asp	His Ser Leu	Ile Ile Leu	Phe Thr Lys
3505		3510		3515	3520
Leu	Glu Asp Glu	Gly Glu Tyr	Thr Cys Met	Ala Ser Asn	Asp Tyr Gly
		3525		3530	3535
Lys	Thr Ile Cys	Ser Ala Tyr	Leu Lys Ile	Asn Ser Lys	Gly Glu Gly
		3540		3545	3550
His	Lys Asp Thr	Glu Thr Glu	Ser Ala Val	Ala Lys Ser	Leu Glu Lys
		3555		3560	3565
Leu	Gly Gly Pro	Cys Pro Pro	His Phe Leu	Lys Glu Leu	Lys Pro Ile
		3570		3575	3580
Arg	Cys Ala Gln	Gly Leu Pro	Ala Ile Phe	Glu Tyr Thr	Val Val Gly
3585		3590		3595	3600
Glu	Pro Ala Pro	Thr Val Thr	Trp Phe Lys	Glu Asn Lys	Gln Leu Cys
		3605		3610	3615
Thr	Ser Val Tyr	Tyr Thr Ile	Ile His Asn	Pro Asn Gly	Ser Gly Thr
		3620		3625	3630
Phe	Ile Val Asn	Asp Pro Gln	Arg Glu Asp	Ser Gly Leu	Tyr Ile Cys
		3635		3640	3645
Lys	Ala Glu Asn	Met Leu Gly	Glu Ser Thr	Cys Ala Ala	Glu Leu Leu
		3650		3655	3660
Val	Leu Leu Glu	Asp Thr Asp	Met Thr Asp	Thr Pro Cys	Lys Ala Lys
3665		3670		3675	3680
Ser	Thr Pro Glu	Ala Pro Glu	Asp Phe Pro	Gln Thr Pro	Leu Lys Gly
		3685		3690	3695
Pro	Ala Val Glu	Ala Leu Asp	Ser Glu Gln	Glu Ile Ala	Thr Phe Val
		3700		3705	3710
Lys	Asp Thr Ile	Leu Lys Ala	Ala Leu Ile	Thr Glu Glu	Asn Gln Gln
		3715		3720	3725
Leu	Ser Tyr Glu	His Ile Ala	Lys Ala Asn	Glu Leu Ser	Ser Gln Leu
		3730		3735	3740
Pro	Leu Gly Ala	Gln Glu Leu	Gln Ser Ile	Leu Glu Gln	Asp Lys Leu
3745		3750		3755	3760
Thr	Pro Glu Ser	Thr Arg Glu	Phe Leu Cys	Ile Asn Gly	Ser Ile His
		3765		3770	3775
Phe	Gln Pro Leu	Lys Glu Pro	Ser Pro Asn	Leu Gln Leu	Gln Ile Val
		3780		3785	3790
Gln	Ser Gln Lys	Thr Phe Ser	Lys Glu Gly	Ile Leu Met	Pro Glu Glu
		3795		3800	3805
Pro	Glu Thr Gln	Ala Val Leu	Ser Asp Thr	Glu Lys Ile	Phe Pro Ser
		3810		3815	3820
Ala	Met Ser Ile	Glu Gln Ile	Asn Ser Leu	Thr Val Glu	Pro Leu Lys
3825		3830		3835	3840
Thr	Leu Leu Ala	Glu Pro Glu	Gly Asn Tyr	Pro Gln Ser	Ser Ile Glu
		3845		3850	3855
Pro	Pro Met His	Ser Tyr Leu	Thr Ser Val	Ala Glu Glu	Val Leu Ser
		3860		3865	3870

Leu Lys Glu Lys Thr Val Ser Asp Thr Asn Arg Glu Gln Arg Val Thr
 3875 3880 3885
 Leu Gln Lys Gln Glu Ala Gln Ser Ala Leu Ile Leu Ser Gln Ser Leu
 3890 3895 3900
 Ala Glu Gly His Val Glu Ser Leu Gln Ser Pro Asp Val Met Ile Ser
 3905 3910 3915 3920
 Gln Val Asn Tyr Glu Pro Leu Val Pro Ser Glu His Ser Cys Thr Glu
 3925 3930 3935
 Gly Gly Lys Ile Leu Ile Glu Ser Ala Asn Pro Leu Glu Asn Ala Gly
 3940 3945 3950
 Gln Asp Ser Ala Val Arg Ile Glu Glu Gly Lys Ser Leu Arg Phe Pro
 3955 3960 3965
 Leu Ala Leu Glu Glu Lys Gln Val Leu Leu Lys Glu Glu His Ser Asp
 3970 3975 3980
 Asn Val Val Met Pro Pro Asp Gln Ile Ile Glu Ser Lys Arg Glu Pro
 3985 3990 3995 4000
 Val Ala Ile Lys Lys Val Gln Glu Val Gln Gly Arg Asp Leu Leu Ser
 4005 4010 4015
 Lys Glu Ser Leu Leu Ser Gly Ile Pro Glu Glu Gln Arg Leu Asn Leu
 4020 4025 4030
 Lys Ile Gln Ile Cys Arg Ala Leu Gln Ala Ala Val Ala Ser Glu Gln
 4035 4040 4045
 Pro Gly Leu Phe Ser Glu Trp Leu Arg Asn Ile Glu Lys Val Glu Val
 4050 4055 4060
 Glu Ala Val Asn Ile Thr Gln Glu Pro Arg His Ile Met Cys Met Tyr
 4065 4070 4075 4080
 Leu Val Thr Ser Ala Lys Ser Val Thr Glu Glu Val Thr Ile Ile Ile
 4085 4090 4095
 Glu Asp Val Asp Pro Gln Met Ala Asn Leu Lys Met Glu Leu Arg Asp
 4100 4105 4110
 Ala Leu Cys Ala Ile Ile Tyr Glu Glu Ile Asp Ile Leu Thr Ala Glu
 4115 4120 4125
 Gly Pro Arg Ile Gln Gln Gly Ala Lys Thr Ser Leu Gln Glu Glu Met
 4130 4135 4140
 Asp Ser Phe Ser Gly Ser Gln Lys Val Glu Pro Ile Thr Glu Pro Glu
 4145 4150 4155 4160
 Val Glu Ser Lys Tyr Leu Ile Ser Thr Glu Glu Val Ser Tyr Phe Asn
 4165 4170 4175
 Val Gln Ser Arg Val Lys Tyr Leu Asp Ala Thr Pro Val Thr Lys Gly
 4180 4185 4190
 Val Ala Ser Ala Val Val Ser Asp Glu Lys Gln Asp Glu Ser Leu Lys
 4195 4200 4205
 Pro Ser Glu Glu Lys Glu Glu Ser Ser Ser Glu Ser Gly Thr Glu Glu
 4210 4215 4220
 Val Ala Thr Val Lys Ile Gln Glu Ala Glu Gly Gly Leu Ile Lys Glu
 4225 4230 4235 4240
 Asp Gly Pro Met Ile His Thr Pro Leu Val Asp Thr Val Ser Glu Glu
 4245 4250 4255
 Gly Asp Ile Val His Leu Thr Thr Ser Ile Thr Asn Ala Lys Glu Val
 4260 4265 4270
 Asn Trp Tyr Phe Glu Asn Lys Leu Val Pro Ser Asp Glu Lys Phe Lys
 4275 4280 4285
 Cys Leu Gln Asp Gln Asn Thr Tyr Thr Leu Val Ile Asp Lys Val Asn
 4290 4295 4300
 Thr Glu Asp His Gln Gly Glu Tyr Val Cys Glu Ala Leu Asn Asp Ser
 4305 4310 4315 4320
 Gly Lys Thr Ala Thr Ser Ala Lys Leu Thr Val Val Lys Arg Ala Ala
 4325 4330 4335
 Pro Val Ile Lys Arg Lys Ile Glu Pro Leu Glu Val Ala Leu Gly His

Leu	Ala	Lys	Phe	Thr	Cys	Glu	Ile	Gln	Ser	Ala	Pro	Asn	Val	Arg	Phe	4340	4345	4350
																4355	4360	4365
Gln	Trp	Phe	Lys	Ala	Gly	Arg	Glu	Ile	Tyr	Glu	Ser	Asp	Lys	Cys	Ser	4370	4375	4380
Ile	Arg	Ser	Ser	Lys	Tyr	Ile	Ser	Ser	Leu	Glu	Ile	Leu	Arg	Thr	Gln	4385	4390	4395
Val	Val	Asp	Cys	Gly	Glu	Tyr	Thr	Cys	Lys	Ala	Ser	Asn	Glu	Tyr	Gly	4405	4410	4415
Ser	Val	Ser	Cys	Thr	Ala	Thr	Leu	Thr	Val	Thr	Val	Pro	Gly	Gly	Glu	4420	4425	4430
Lys	Lys	Val	Arg	Lys	Leu	Leu	Pro	Glu	Arg	Lys	Pro	Glu	Pro	Lys	Glu	4435	4440	4445
Glu	Val	Val	Leu	Lys	Ser	Val	Leu	Arg	Lys	Arg	Pro	Glu	Glu	Glu	Glu	4450	4455	4460
Pro	Lys	Val	Glu	Pro	Lys	Lys	Leu	Glu	Lys	Val	Lys	Lys	Pro	Ala	Val	4465	4470	4475
Pro	Glu	Pro	Pro	Pro	Pro	Lys	Pro	Val	Glu	Glu	Val	Glu	Val	Pro	Thr	4485	4490	4495
Val	Thr	Lys	Arg	Glu	Arg	Lys	Ile	Pro	Glu	Pro	Thr	Lys	Val	Pro	Glu	4500	4505	4510
Ile	Lys	Pro	Ala	Ile	Pro	Leu	Pro	Ala	Pro	Glu	Pro	Lys	Pro	Lys	Pro	4515	4520	4525
Glu	Ala	Glu	Val	Lys	Thr	Ile	Lys	Pro	Pro	Pro	Val	Glu	Pro	Glu	Pro	4530	4535	4540
Thr	Pro	Ile	Ala	Ala	Pro	Val	Thr	Val	Pro	Val	Val	Gly	Lys	Lys	Ala	4545	4550	4555
Glu	Ala	Lys	Ala	Pro	Lys	Glu	Glu	Ala	Ala	Lys	Pro	Lys	Gly	Pro	Ile	4565	4570	4575
Lys	Gly	Val	Pro	Lys	Lys	Thr	Pro	Ser	Pro	Ile	Glu	Ala	Glu	Arg	Arg	4580	4585	4590
Lys	Leu	Arg	Pro	Gly	Ser	Gly	Gly	Glu	Lys	Pro	Pro	Asp	Glu	Ala	Pro	4595	4600	4605
Phe	Thr	Tyr	Gln	Leu	Lys	Ala	Val	Pro	Leu	Lys	Phe	Val	Lys	Glu	Ile	4610	4615	4620
Lys	Asp	Ile	Ile	Leu	Thr	Glu	Ser	Glu	Phe	Val	Gly	Ser	Ser	Ala	Ile	4625	4630	4635
Phe	Glu	Cys	Leu	Val	Ser	Pro	Ser	Thr	Ala	Ile	Thr	Thr	Trp	Met	Lys	4645	4650	4655
Asp	Gly	Ser	Asn	Ile	Arg	Glu	Ser	Pro	Lys	His	Arg	Phe	Ile	Ala	Asp	4660	4665	4670
Gly	Lys	Asp	Arg	Lys	Leu	His	Ile	Ile	Asp	Val	Gln	Leu	Ser	Asp	Ala	4675	4680	4685
Gly	Glu	Tyr	Thr	Cys	Val	Leu	Arg	Leu	Gly	Asn	Lys	Glu	Lys	Thr	Ser	4690	4695	4700
Thr	Ala	Lys	Leu	Val	Val	Glu	Glu	Leu	Pro	Val	Arg	Phe	Val	Lys	Thr	4705	4710	4715
Leu	Glu	Glu	Glu	Val	Thr	Val	Val	Lys	Gly	Gln	Pro	Leu	Tyr	Leu	Ser	4725	4730	4735
Cys	Glu	Leu	Asn	Lys	Glu	Arg	Asp	Val	Val	Trp	Arg	Lys	Asp	Gly	Lys	4740	4745	4750
Ile	Val	Val	Glu	Lys	Pro	Gly	Arg	Ile	Val	Pro	Gly	Val	Ile	Gly	Leu	4755	4760	4765
Met	Arg	Ala	Leu	Thr	Ile	Asn	Asp	Ala	Asp	Asp	Thr	Asp	Ala	Gly	Thr	4770	4775	4780
Tyr	Thr	Val	Thr	Val	Glu	Asn	Ala	Asn	Asn	Leu	Glu	Cys	Ser	Ser	Cys	4785	4790	4795
Val	Lys	Val	Val	Glu	Val	Ile	Arg	Asp	Trp	Leu	Val	Lys	Pro	Ile	Arg	4805	4810	4815

Asp Gln His Val Lys Pro Lys Gly Thr Ala Ile Phe Ala Cys Asp Ile
 4820 4825 4830
 Ala Lys Asp Thr Pro Asn Ile Lys Trp Phe Lys Gly Tyr Asp Glu Ile
 4835 4840 4845
 Pro Ala Glu Pro Asn Asp Lys Thr Glu Ile Leu Arg Asp Gly Asn His
 4850 4855 4860
 Leu Tyr Leu Lys Ile Lys Asn Ala Met Pro Glu Asp Ile Ala Glu Tyr
 4865 4870 4875 4880
 Ala Val Glu Ile Glu Gly Lys Arg Tyr Pro Ala Lys Leu Thr Leu Gly
 4885 4890 4895
 Glu Arg Glu Val Glu Leu Leu Lys Pro Ile Glu Asp Val Thr Ile Tyr
 4900 4905 4910
 Glu Lys Glu Ser Ala Ser Phe Asp Ala Glu Ile Ser Glu Ala Asp Ile
 4915 4920 4925
 Pro Gly Gln Trp Lys Leu Lys Gly Glu Leu Leu Arg Pro Ser Pro Thr
 4930 4935 4940
 Cys Glu Ile Lys Ala Glu Gly Gly Lys Arg Phe Leu Thr Leu His Lys
 4945 4950 4955 4960
 Val Lys Leu Asp Gln Ala Gly Glu Val Leu Tyr Gln Ala Leu Asn Ala
 4965 4970 4975
 Ile Thr Thr Ala Ile Leu Thr Val Lys Glu Ile Glu Leu Asp Phe Ala
 4980 4985 4990
 Val Pro Leu Lys Asp Val Thr Val Pro Glu Arg Arg Gln Ala Arg Phe
 4995 5000 5005
 Glu Cys Val Leu Thr Arg Glu Ala Asn Val Ile Trp Ser Lys Gly Pro
 5010 5015 5020
 Asp Ile Ile Lys Ser Ser Asp Lys Phe Asp Ile Ile Ala Asp Gly Lys
 5025 5030 5035 5040
 Lys His Ile Leu Val Ile Asn Asp Ser Gln Phe Asp Asp Glu Gly Val
 5045 5050 5055
 Tyr Thr Ala Glu Val Glu Gly Lys Lys Thr Ser Ala Arg Leu Phe Val
 5060 5065 5070
 Thr Gly Ile Arg Leu Lys Phe Met Ser Pro Leu Glu Asp Gln Thr Val
 5075 5080 5085
 Lys Glu Gly Glu Thr Ala Thr Phe Val Cys Glu Leu Ser His Glu Lys
 5090 5095 5100
 Met His Val Val Trp Phe Lys Asn Asp Ala Lys Leu His Thr Ser Arg
 5105 5110 5115 5120
 Thr Val Leu Ile Ser Ser Glu Gly Lys Thr His Lys Leu Glu Met Lys
 5125 5130 5135
 Glu Val Thr Leu Asp Asp Ile Ser Gln Ile Lys Ala Gln Val Lys Glu
 5140 5145 5150
 Leu Ser Ser Thr Ala Gln Leu Lys Val Leu Glu Ala Asp Pro Tyr Phe
 5155 5160 5165
 Thr Val Lys Leu His Asp Lys Thr Ala Val Glu Lys Asp Glu Ile Thr
 5170 5175 5180
 Leu Lys Cys Glu Val Ser Lys Asp Val Pro Val Lys Trp Phe Lys Asp
 5185 5190 5195 5200
 Gly Glu Glu Ile Val Pro Ser Pro Lys Tyr Ser Ile Lys Ala Asp Gly
 5205 5210 5215
 Leu Arg Arg Ile Leu Lys Ile Lys Lys Ala Asp Leu Lys Asp Lys Gly
 5220 5225 5230
 Glu Tyr Val Cys Asp Cys Gly Thr Asp Lys Thr Lys Ala Asn Val Thr
 5235 5240 5245
 Val Glu Ala Arg Leu Ile Glu Val Glu Lys Pro Leu Tyr Gly Val Glu
 5250 5255 5260
 Val Phe Val Gly Glu Thr Ala His Phe Glu Ile Glu Leu Ser Glu Pro
 5265 5270 5275 5280
 Asp Val His Gly Gln Trp Lys Leu Lys Gly Gln Pro Leu Thr Ala Ser

Pro	Asp	Cys	Glu	Ile	Ile	Glu	Asp	Gly	Lys	Lys	His	Ile	Leu	Ile	Leu	5285	5290	5295
			5300					5305					5310					
His	Asn	Cys	Gln	Leu	Gly	Met	Thr	Gly	Glu	Val	Ser	Phe	Gln	Ala	Ala			
		5315					5320					5325						
Asn	Ala	Lys	Ser	Ala	Ala	Asn	Leu	Lys	Val	Lys	Glu	Leu	Pro	Leu	Ile			
		5330				5335					5340							
Phe	Ile	Thr	Pro	Leu	Ser	Asp	Val	Lys	Val	Phe	Glu	Lys	Asp	Glu	Ala			
5345					5350					5355					5360			
Lys	Phe	Glu	Cys	Glu	Val	Ser	Arg	Glu	Pro	Lys	Thr	Phe	Arg	Trp	Leu			
			5365					5370						5375				
Lys	Gly	Thr	Gln	Glu	Ile	Thr	Gly	Asp	Asp	Arg	Phe	Glu	Leu	Ile	Lys			
			5380					5385					5390					
Asp	Gly	Thr	Lys	His	Ser	Met	Val	Ile	Lys	Ser	Ala	Ala	Phe	Glu	Asp			
		5395					5400					5405						
Glu	Ala	Lys	Tyr	Met	Phe	Glu	Ala	Glu	Asp	Lys	His	Thr	Ser	Gly	Lys			
		5410				5415					5420							
Leu	Ile	Ile	Glu	Gly	Ile	Arg	Leu	Lys	Phe	Leu	Thr	Pro	Leu	Lys	Asp			
5425					5430					5435					5440			
Val	Thr	Ala	Lys	Glu	Lys	Glu	Ser	Ala	Val	Phe	Thr	Val	Glu	Leu	Ser			
			5445					5450						5455				
His	Asp	Asn	Ile	Arg	Val	Lys	Trp	Phe	Lys	Asn	Asp	Gln	Arg	Leu	His			
		5460						5465					5470					
Thr	Thr	Arg	Ser	Val	Ser	Met	Gln	Asp	Glu	Gly	Lys	Thr	His	Ser	Ile			
		5475					5480						5485					
Thr	Phe	Lys	Asp	Leu	Ser	Ile	Asp	Asp	Thr	Ser	Gln	Ile	Arg	Val	Glu			
		5490				5495					5500							
Ala	Met	Gly	Met	Ser	Ser	Glu	Ala	Lys	Leu	Thr	Val	Leu	Glu	Gly	Asp			
5505					5510					5515					5520			
Pro	Tyr	Phe	Thr	Gly	Lys	Leu	Gln	Asp	Tyr	Thr	Gly	Val	Glu	Lys	Asp			
			5525					5530						5535				
Glu	Val	Ile	Leu	Gln	Cys	Glu	Ile	Ser	Lys	Ala	Asp	Ala	Pro	Val	Lys			
			5540					5545					5550					
Trp	Phe	Lys	Asp	Gly	Lys	Glu	Ile	Lys	Pro	Ser	Lys	Asn	Ala	Val	Ile			
		5555				5560						5565						
Lys	Thr	Asp	Gly	Lys	Lys	Arg	Met	Leu	Ile	Leu	Lys	Lys	Ala	Leu	Lys			
		5570				5575					5580							
Ser	Asp	Ile	Gly	Gln	Tyr	Thr	Cys	Asp	Cys	Gly	Thr	Asp	Lys	Thr	Ser			
5585					5590					5595					5600			
Gly	Lys	Leu	Asp	Ile	Glu	Asp	Arg	Glu	Ile	Lys	Leu	Val	Arg	Pro	Leu			
			5605					5610						5615				
His	Ser	Val	Glu	Val	Met	Glu	Thr	Glu	Thr	Ala	Arg	Phe	Glu	Thr	Glu			
			5620					5625					5630					
Ile	Ser	Glu	Asp	Asp	Ile	His	Ala	Asn	Trp	Lys	Leu	Lys	Gly	Glu	Ala			
		5635					5640					5645						
Leu	Leu	Gln	Thr	Pro	Asp	Cys	Glu	Ile	Lys	Glu	Glu	Gly	Lys	Ile	His			
		5650				5655					5660							
Ser	Leu	Val	Leu	His	Asn	Cys	Arg	Leu	Asp	Gln	Thr	Gly	Gly	Val	Asp			
5665					5670					5675					5680			
Phe	Gln	Ala	Ala	Asn	Val	Lys	Ser	Ser	Ala	His	Leu	Arg	Val	Lys	Pro			
			5685					5690						5695				
Arg	Val	Ile	Gly	Leu	Leu	Arg	Pro	Leu	Lys	Asp	Val	Thr	Val	Thr	Ala			
			5700					5705						5710				
Gly	Glu	Thr	Ala	Thr	Phe	Asp	Cys	Glu	Leu	Ser	Tyr	Glu	Asp	Ile	Pro			
			5715				5720					5725						
Val	Glu	Trp	Tyr	Leu	Lys	Gly	Lys	Lys	Leu	Glu	Pro	Ser	Asp	Lys	Val			
		5730				5735					5740							
Val	Pro	Arg	Ser	Glu	Gly	Lys	Val	His	Thr	Leu	Thr	Leu	Arg	Asp	Val			
5745					5750					5755					5760			

Lys Leu Glu Asp Ala Gly Glu Val Gln Leu Thr Ala Lys Asp Phe Lys
 5765 5770 5775
 Thr His Ala Asn Leu Phe Val Lys Glu Pro Pro Val Glu Phe Thr Lys
 5780 5785 5790
 Pro Leu Glu Asp Gln Thr Val Glu Glu Gly Ala Thr Ala Val Leu Glu
 5795 5800 5805
 Cys Glu Val Ser Arg Glu Asn Ala Lys Val Lys Trp Phe Lys Asn Gly
 5810 5815 5820
 Thr Glu Ile Leu Lys Ser Lys Lys Tyr Glu Ile Val Ala Asp Gly Arg
 5825 5830 5835 5840
 Val Arg Lys Leu Val Ile His Asp Cys Thr Pro Glu Asp Ile Lys Thr
 5845 5850 5855
 Tyr Thr Cys Asp Ala Lys Asp Phe Lys Thr Ser Cys Asn Leu Asn Val
 5860 5865 5870
 Val Pro Pro His Val Glu Phe Leu Arg Pro Leu Thr Asp Leu Gln Val
 5875 5880 5885
 Arg Glu Lys Glu Met Ala Arg Phe Glu Cys Glu Leu Ser Arg Glu Asn
 5890 5895 5900
 Ala Lys Val Lys Trp Phe Lys Asp Gly Ala Glu Ile Lys Lys Gly Lys
 5905 5910 5915 5920
 Lys Tyr Asp Ile Ile Ser Lys Gly Ala Val Arg Ile Leu Val Ile Asn
 5925 5930 5935
 Lys Cys Leu Leu Asp Asp Glu Ala Glu Tyr Ser Cys Glu Val Arg Thr
 5940 5945 5950
 Ala Arg Thr Ser Gly Met Leu Thr Val Leu Glu Glu Glu Ala Val Phe
 5955 5960 5965
 Thr Lys Asn Leu Ala Asn Ile Glu Val Ser Glu Thr Asp Thr Ile Lys
 5970 5975 5980
 Leu Val Cys Glu Val Ser Lys Pro Gly Ala Glu Val Ile Trp Tyr Lys
 5985 5990 5995 6000
 Gly Asp Glu Glu Ile Ile Glu Thr Gly Arg Tyr Glu Ile Leu Thr Glu
 6005 6010 6015
 Gly Arg Lys Arg Ile Leu Val Ile Gln Asn Ala His Leu Glu Asp Ala
 6020 6025 6030
 Gly Asn Tyr Asn Cys Arg Leu Pro Ser Ser Arg Thr Asp Gly Lys Val
 6035 6040 6045
 Lys Val His Glu Leu Ala Ala Glu Phe Ile Ser Lys Pro Gln Asn Leu
 6050 6055 6060
 Glu Ile Leu Glu Gly Glu Lys Ala Glu Phe Val Cys Ser Ile Ser Lys
 6065 6070 6075 6080
 Glu Ser Phe Pro Val Gln Trp Lys Arg Asp Asp Lys Thr Leu Glu Ser
 6085 6090 6095
 Gly Asp Lys Tyr Asp Val Ile Ala Asp Gly Lys Lys Arg Val Leu Val
 6100 6105 6110
 Val Lys Asp Ala Thr Leu Gln Asp Met Gly Thr Tyr Val Val Met Val
 6115 6120 6125
 Gly Ala Ala Arg Ala Ala Ala His Leu Thr Val Ile Glu Lys Leu Arg
 6130 6135 6140
 Ile Val Val Pro Leu Lys Asp Thr Arg Val Lys Glu Gln Gln Glu Val
 6145 6150 6155 6160
 Val Phe Asn Cys Glu Val Asn Thr Glu Gly Ala Lys Ala Lys Trp Phe
 6165 6170 6175
 Arg Asn Glu Glu Ala Ile Phe Asp Ser Ser Lys Tyr Ile Ile Leu Gln
 6180 6185 6190
 Lys Asp Leu Val Tyr Thr Leu Arg Ile Arg Asp Ala His Leu Asp Asp
 6195 6200 6205
 Gln Ala Asn Tyr Asn Val Ser Leu Thr Asn His Arg Gly Glu Asn Val
 6210 6215 6220
 Lys Ser Ala Ala Asn Leu Ile Val Glu Glu Glu Asp Leu Arg Ile Val

6225		6230		6235		6240
Glu Pro Leu Lys Asp Ile Glu Thr Met Glu Lys Lys Ser Val Thr Phe						
	6245		6250		6255	
Trp Cys Lys Val Asn Arg Leu Asn Val Thr Leu Lys Trp Thr Lys Asn						
	6260		6265		6270	
Gly Glu Glu Val Pro Phe Asp Asn Arg Val Ser Tyr Arg Val Asp Lys						
	6275		6280		6285	
Tyr Lys His Met Leu Thr Ile Lys Asp Cys Gly Phe Pro Asp Glu Gly						
	6290		6295		6300	
Glu Tyr Ile Val Thr Ala Gly Gln Asp Lys Ser Val Ala Glu Leu Leu						
6305		6310		6315		6320
Ile Ile Glu Ala Pro Thr Glu Phe Val Glu His Leu Glu Asp Gln Thr						
	6325		6330		6335	
Val Thr Glu Phe Asp Asp Ala Val Phe Ser Cys Gln Leu Ser Arg Glu						
	6340		6345		6350	
Lys Ala Asn Val Lys Trp Tyr Arg Asn Gly Arg Glu Ile Lys Glu Gly						
	6355		6360		6365	
Lys Lys Tyr Lys Phe Glu Lys Asp Gly Ser Ile His Arg Leu Ile Ile						
	6370		6375		6380	
Lys Asp Cys Arg Leu Asp Asp Glu Cys Glu Tyr Ala Cys Gly Val Glu						
6385		6390		6395		6400
Asp Arg Lys Ser Arg Ala Arg Leu Phe Val Glu Glu Ile Pro Val Glu						
	6405		6410		6415	
Ile Ile Arg Pro Pro Gln Asp Ile Leu Glu Ala Pro Gly Ala Asp Val						
	6420		6425		6430	
Val Phe Leu Ala Glu Leu Asn Lys Asp Lys Val Glu Val Gln Trp Leu						
	6435		6440		6445	
Arg Asn Asn Met Val Val Val Gln Gly Asp Lys His Gln Met Met Ser						
	6450		6455		6460	
Glu Gly Lys Ile His Arg Leu Gln Ile Cys Asp Ile Lys Pro Arg Asp						
6465		6470		6475		6480
Gln Gly Glu Tyr Arg Phe Ile Ala Lys Asp Lys Glu Ala Arg Ala Lys						
	6485		6490		6495	
Leu Glu Leu Ala Ala Ala Pro Lys Ile Lys Thr Ala Asp Gln Asp Leu						
	6500		6505		6510	
Val Val Asp Val Gly Lys Pro Leu Thr Met Val Val Pro Tyr Asp Ala						
	6515		6520		6525	
Tyr Pro Lys Ala Glu Ala Glu Trp Phe Lys Glu Asn Glu Pro Leu Ser						
	6530		6535		6540	
Thr Lys Thr Ile Asp Thr Thr Ala Glu Gln Thr Ser Phe Arg Ile Leu						
6545		6550		6555		6560
Glu Ala Lys Lys Gly Asp Lys Gly Arg Tyr Lys Ile Val Leu Gln Asn						
	6565		6570		6575	
Lys His Gly Lys Ala Glu Gly Phe Ile Asn Leu Lys Val Ile Asp Val						
	6580		6585		6590	
Pro Gly Pro Val Arg Asn Leu Glu Val Thr Glu Thr Phe Asp Gly Glu						
	6595		6600		6605	
Val Ser Leu Ala Trp Glu Glu Pro Leu Thr Asp Gly Gly Ser Lys Ile						
	6610		6615		6620	
Ile Gly Tyr Val Val Glu Arg Arg Asp Ile Lys Arg Lys Thr Trp Val						
6625		6630		6635		6640
Leu Ala Thr Asp Arg Ala Glu Ser Cys Glu Phe Thr Val Thr Gly Leu						
	6645		6650		6655	
Gln Lys Gly Gly Val Glu Tyr Leu Phe Arg Val Ser Ala Arg Asn Arg						
	6660		6665		6670	
Val Gly Thr Gly Glu Pro Val Glu Thr Asp Asn Pro Val Glu Ala Arg						
	6675		6680		6685	
Ser Lys Tyr Asp Val Pro Gly Pro Pro Leu Asn Val Thr Ile Thr Asp						
	6690		6695		6700	

Val	Asn	Arg	Phe	Gly	Val	Ser	Leu	Thr	Trp	Glu	Pro	Pro	Glu	Tyr	Asp		
6705					6710					6715					6720		
Gly	Gly	Ala	Glu	Ile	Thr	Asn	Tyr	Val	Ile	Glu	Leu	Arg	Asp	Lys	Thr		
				6725					6730					6735			
Ser	Ile	Arg	Trp	Asp	Thr	Ala	Met	Thr	Val	Arg	Ala	Glu	Asp	Leu	Ser		
			6740					6745					6750				
Ala	Thr	Val	Thr	Asp	Val	Val	Glu	Gly	Gln	Glu	Tyr	Ser	Phe	Arg	Val		
		6755					6760					6765					
Arg	Ala	Gln	Asn	Arg	Ile	Gly	Val	Gly	Lys	Pro	Ser	Ala	Ala	Thr	Pro		
	6770					6775				6780							
Phe	Val	Lys	Val	Ala	Asp	Pro	Ile	Glu	Arg	Pro	Ser	Pro	Pro	Val	Asn		
6785					6790					6795					6800		
Leu	Thr	Ser	Ser	Asp	Gln	Thr	Gln	Ser	Ser	Val	Gln	Leu	Lys	Trp	Glu		
				6805					6810					6815			
Pro	Pro	Leu	Lys	Asp	Gly	Gly	Ser	Pro	Ile	Leu	Gly	Tyr	Ile	Ile	Glu		
			6820					6825					6830				
Arg	Cys	Glu	Glu	Gly	Lys	Asp	Asn	Trp	Ile	Arg	Cys	Asn	Met	Lys	Leu		
		6835					6840					6845					
Val	Pro	Glu	Leu	Thr	Tyr	Lys	Val	Thr	Gly	Leu	Glu	Lys	Gly	Asn	Lys		
	6850					6855				6860							
Tyr	Leu	Tyr	Arg	Val	Ser	Ala	Glu	Asn	Lys	Ala	Gly	Val	Ser	Asp	Pro		
6865					6870					6875				6880			
Ser	Glu	Ile	Leu	Gly	Pro	Leu	Thr	Ala	Asp	Ala	Phe	Val	Glu	Pro			
				6885					6890					6895			
Thr	Met	Asp	Leu	Ser	Ala	Phe	Lys	Asp	Gly	Leu	Glu	Val	Ile	Val	Pro		
			6900					6905					6910				
Asn	Pro	Ile	Thr	Ile	Leu	Val	Pro	Ser	Thr	Gly	Tyr	Pro	Arg	Pro	Thr		
		6915					6920					6925					
Ala	Thr	Trp	Cys	Phe	Gly	Asp	Lys	Val	Leu	Glu	Thr	Gly	Asp	Arg	Val		
	6930					6935					6940						
Lys	Met	Lys	Thr	Leu	Ser	Ala	Tyr	Ala	Glu	Leu	Val	Ile	Ser	Pro	Ser		
6945					6950					6955				6960			
Glu	Arg	Ser	Asp	Lys	Gly	Ile	Tyr	Thr	Leu	Lys	Leu	Glu	Asn	Arg	Val		
				6965					6970					6975			
Lys	Thr	Ile	Ser	Gly	Glu	Ile	Asp	Val	Asn	Val	Ile	Ala	Arg	Pro	Ser		
			6980					6985					6990				
Ala	Pro	Lys	Glu	Leu	Lys	Phe	Gly	Asp	Ile	Thr	Lys	Asp	Ser	Val	His		
	6995						7000					7005					
Leu	Thr	Trp	Glu	Pro	Pro	Asp	Asp	Gly	Gly	Ser	Pro	Leu	Thr	Gly			
	7010					7015				7020							
Tyr	Val	Val	Glu	Lys	Arg	Glu	Val	Ser	Arg	Lys	Thr	Trp	Thr	Lys	Val		
7025					7030					7035				7040			
Met	Asp	Phe	Val	Thr	Asp	Leu	Glu	Phe	Thr	Val	Pro	Asp	Leu	Val	Gln		
				7045					7050					7055			
Gly	Lys	Glu	Tyr	Leu	Phe	Lys	Val	Cys	Ala	Arg	Asn	Lys	Cys	Gly	Pro		
			7060					7065					7070				
Gly	Glu	Pro	Ala	Tyr	Val	Asp	Glu	Pro	Val	Asn	Met	Ser	Thr	Pro	Ala		
	7075						7080					7085					
Thr	Val	Pro	Asp	Pro	Pro	Glu	Asn	Val	Lys	Trp	Arg	Asp	Arg	Thr	Ala		
	7090					7095					7100						
Asn	Ser	Ile	Phe	Leu	Thr	Trp	Asp	Pro	Pro	Lys	Asn	Asp	Gly	Gly	Ser		
7105					7110					7115				7120			
Arg	Ile	Lys	Gly	Tyr	Ile	Val	Glu	Arg	Cys	Pro	Arg	Gly	Ser	Asp	Lys		
				7125					7130					7135			
Trp	Val	Ala	Cys	Gly	Glu	Pro	Val	Ala	Glu	Thr	Lys	Met	Glu	Val	Thr		
		7140						7145					7150				
Gly	Leu	Glu	Gly	Lys	Trp	Tyr	Ala	Tyr	Arg	Val	Lys	Thr	Leu	Asn			
	7155					7160					7165						
Arg	Gln	Gly	Ala	Ser	Lys	Pro	Ser	Arg	Pro	Thr	Glu	Glu	Ile	Gln	Ala		

7170	7175	7180
Val Asp Thr Gln Glu Ala Pro Glu Ile Phe Leu Asp Val Lys Leu Leu		
7185	7190	7195
Ala Gly Leu Thr Val Lys Ala Gly Thr Lys Ile Glu Leu Pro Ala Thr		7200
	7205	7210
Val Thr Gly Lys Pro Glu Pro Lys Ile Thr Trp Thr Lys Ala Asp Met		7215
	7220	7225
Ile Leu Lys Gln Asp Lys Arg Ile Thr Ile Glu Asn Val Pro Lys Lys		7230
	7235	7240
Ser Thr Val Thr Ile Val Asp Ser Lys Arg Ser Asp Thr Gly Thr Tyr		7245
	7250	7255
Ile Ile Glu Ala Val Asn Val Cys Gly Arg Ala Thr Ala Val Val Glu		7260
7265	7270	7275
Val Asn Val Leu Asp Lys Pro Gly Pro Pro Ala Ala Phe Asp Ile Thr		7280
	7285	7290
Asp Val Thr Asn Glu Ser Cys Leu Leu Thr Trp Asn Pro Pro Arg Asp		7295
	7300	7305
Asp Gly Gly Ser Lys Ile Thr Asn Tyr Val Val Glu Arg Arg Ala Thr		7310
	7315	7320
Asp Ser Glu Val Trp His Lys Leu Ser Ser Thr Val Lys Asp Thr Asn		7325
	7330	7335
Phe Lys Ala Thr Lys Leu Ile Pro Asn Lys Glu Tyr Ile Phe Arg Val		7340
7345	7350	7355
Ala Ala Glu Asn Met Tyr Gly Ala Gly Glu Pro Val Gln Ala Ser Pro		7360
	7365	7370
Ile Thr Ala Lys Tyr Gln Phe Asp Pro Pro Gly Pro Pro Thr Arg Leu		7375
	7380	7385
Glu Pro Ser Asp Ile Thr Lys Asp Ala Val Thr Leu Thr Trp Cys Glu		7390
	7395	7400
Pro Asp Asp Asp Gly Gly Ser Pro Ile Thr Gly Tyr Trp Val Glu Arg		7405
	7410	7415
Leu Asp Pro Asp Thr Asp Lys Trp Val Arg Cys Asn Lys Met Pro Val		7420
7425	7430	7435
Lys Asp Thr Thr Tyr Arg Val Lys Gly Leu Thr Asn Lys Lys Lys Tyr		7440
	7445	7450
Arg Phe Arg Val Leu Ala Glu Asn Leu Ala Gly Pro Gly Lys Pro Ser		7455
	7460	7465
Lys Ser Thr Glu Pro Ile Leu Ile Lys Asp Pro Ile Asp Pro Pro Trp		7470
	7475	7480
Pro Pro Gly Lys Pro Thr Val Lys Asp Val Gly Lys Thr Ser Val Arg		7485
	7490	7495
Leu Asn Trp Thr Lys Pro Glu His Asp Gly Gly Ala Lys Ile Glu Ser		7500
7505	7510	7515
Tyr Val Ile Glu Met Leu Lys Thr Gly Thr Asp Glu Trp Val Arg Val		7520
	7525	7530
Ala Glu Gly Val Pro Thr Thr Gln His Leu Leu Pro Gly Leu Met Glu		7535
	7540	7545
Gly Gln Glu Tyr Ser Phe Arg Val Arg Ala Val Asn Lys Ala Gly Glu		7550
	7555	7560
Ser Glu Pro Ser Glu Pro Ser Asp Pro Val Leu Cys Arg Glu Lys Leu		7565
	7570	7575
Tyr Pro Pro Ser Pro Pro Arg Trp Leu Glu Val Ile Asn Ile Thr Lys		7580
7585	7590	7595
Asn Thr Ala Asp Leu Lys Trp Thr Val Pro Glu Lys Asp Gly Gly Ser		7600
	7605	7610
Pro Ile Thr Asn Tyr Ile Val Glu Lys Arg Asp Val Arg Arg Lys Gly		7615
	7620	7625
Trp Gln Thr Val Asp Thr Thr Val Lys Asp Thr Lys Cys Thr Val Thr		7630
	7635	7640
		7645

Pro Leu Thr Glu Gly Ser Leu Tyr Val Phe Arg Val Ala Ala Glu Asn
 7650 7655 7660
 Ala Ile Gly Gln Ser Asp Tyr Thr Glu Ile Glu Asp Ser Val Leu Ala
 7665 7670 7675 7680
 Lys Asp Thr Phe Thr Thr Pro Gly Pro Pro Tyr Ala Leu Ala Val Val
 7685 7690 7695
 Asp Val Thr Lys Arg His Val Asp Leu Lys Trp Glu Pro Pro Lys Asn
 7700 7705 7710
 Asp Gly Gly Arg Pro Ile Gln Arg Tyr Val Ile Glu Lys Lys Glu Arg
 7715 7720 7725
 Leu Gly Thr Arg Trp Val Lys Ala Gly Lys Thr Ala Gly Pro Asp Cys
 7730 7735 7740
 Asn Phe Arg Val Thr Asp Val Ile Glu Gly Thr Glu Val Gln Phe Gln
 7745 7750 7755 7760
 Val Arg Ala Glu Asn Glu Ala Gly Val Gly His Pro Ser Glu Pro Thr
 7765 7770 7775
 Glu Ile Leu Ser Ile Glu Asp Pro Thr Ser Pro Pro Ser Pro Pro Leu
 7780 7785 7790
 Asp Leu His Val Thr Asp Ala Gly Arg Lys His Ile Ala Ile Ala Trp
 7795 7800 7805
 Lys Pro Pro Glu Lys Asn Gly Gly Ser Pro Ile Ile Gly Tyr His Val
 7810 7815 7820
 Glu Met Cys Pro Val Gly Thr Glu Lys Trp Met Arg Val Asn Ser Arg
 7825 7830 7835 7840
 Pro Ile Lys Asp Leu Lys Phe Lys Val Glu Glu Gly Val Val Pro Asp
 7845 7850 7855
 Lys Glu Tyr Val Leu Arg Val Arg Ala Val Asn Ala Ile Gly Val Ser
 7860 7865 7870
 Glu Pro Ser Glu Ile Ser Glu Asn Val Val Ala Lys Asp Pro Asp Cys
 7875 7880 7885
 Lys Pro Thr Ile Asp Leu Glu Thr His Asp Ile Ile Val Ile Glu Gly
 7890 7895 7900
 Glu Lys Leu Ser Ile Pro Val Pro Phe Arg Ala Val Pro Val Pro Thr
 7905 7910 7915 7920
 Val Ser Trp His Lys Asp Gly Lys Glu Val Lys Ala Ser Asp Arg Leu
 7925 7930 7935
 Thr Met Lys Asn Asp His Ile Ser Ala His Leu Glu Val Pro Lys Ser
 7940 7945 7950
 Val Arg Ala Asp Ala Gly Ile Tyr Thr Ile Thr Leu Glu Asn Lys Leu
 7955 7960 7965
 Gly Ser Ala Thr Ala Ser Ile Asn Val Lys Val Ile Gly Leu Pro Gly
 7970 7975 7980
 Pro Cys Lys Asp Ile Lys Ala Ser Asp Ile Thr Lys Ser Ser Cys Lys
 7985 7990 7995 8000
 Leu Thr Trp Glu Pro Pro Glu Phe Asp Gly Gly Thr Pro Ile Leu His
 8005 8010 8015
 Tyr Val Leu Glu Arg Arg Glu Ala Gly Arg Arg Thr Tyr Ile Pro Val
 8020 8025 8030
 Met Ser Gly Glu Asn Lys Leu Ser Trp Thr Val Lys Asp Leu Ile Pro
 8035 8040 8045
 Asn Gly Glu Tyr Phe Phe Arg Val Lys Ala Val Asn Lys Val Gly Gly
 8050 8055 8060
 Gly Glu Tyr Ile Glu Leu Lys Asn Pro Val Ile Ala Gln Asp Pro Lys
 8065 8070 8075 8080
 Gln Pro Pro Asp Pro Pro Val Asp Val Glu Val His Asn Pro Thr Ala
 8085 8090 8095
 Glu Ala Met Thr Ile Thr Trp Lys Pro Pro Leu Tyr Asp Gly Gly Ser
 8100 8105 8110
 Lys Ile Met Gly Tyr Ile Ile Glu Lys Ile Ala Lys Gly Glu Glu Arg

		8115					8120					8125				
Trp	Lys	Arg	Cys	Asn	Glu	His	Leu	Val	Pro	Ile	Leu	Thr	Tyr	Thr	Ala	
	8130					8135					8140					
Lys	Gly	Leu	Glu	Glu	Gly	Lys	Glu	Tyr	Gln	Phe	Arg	Val	Arg	Ala	Glu	
8145					8150					8155					8160	
Asn	Ala	Ala	Gly	Ile	Ser	Glu	Pro	Ser	Arg	Ala	Thr	Pro	Pro	Thr	Lys	
				8165					8170						8175	
Ala	Val	Asp	Pro	Ile	Asp	Ala	Pro	Lys	Val	Ile	Leu	Arg	Thr	Ser	Leu	
			8180					8185								
Glu	Val	Lys	Arg	Gly	Asp	Glu	Ile	Ala	Leu	Asp	Ala	Ser	Ile	Ser	Gly	
		8195				8200					8205					
Ser	Pro	Tyr	Pro	Thr	Ile	Thr	Trp	Ile	Lys	Asp	Glu	Asn	Val	Ile	Val	
	8210					8215					8220					
Pro	Glu	Glu	Ile	Lys	Lys	Arg	Ala	Ala	Pro	Leu	Val	Arg	Arg	Arg	Lys	
8225					8230					8235					8240	
Gly	Glu	Val	Gln	Glu	Glu	Glu	Pro	Phe	Val	Leu	Pro	Leu	Thr	Gln	Arg	
				8245					8250						8255	
Leu	Ser	Ile	Asp	Asn	Ser	Lys	Lys	Gly	Glu	Ser	Gln	Leu	Arg	Val	Arg	
			8260					8265								
Asp	Ser	Leu	Arg	Pro	Asp	His	Gly	Leu	Tyr	Met	Ile	Lys	Val	Glu	Asn	
			8275				8280					8285				
Asp	His	Gly	Ile	Ala	Lys	Ala	Pro	Cys	Thr	Val	Ser	Val	Leu	Asp	Thr	
	8290					8295					8300					
Pro	Gly	Pro	Pro	Ile	Asn	Phe	Val	Phe	Glu	Asp	Ile	Arg	Lys	Thr	Ser	
8305					8310					8315					8320	
Val	Leu	Cys	Lys	Trp	Glu	Pro	Pro	Leu	Asp	Asp	Gly	Gly	Ser	Glu	Ile	
				8325					8330						8335	
Ile	Asn	Tyr	Thr	Leu	Glu	Lys	Lys	Asp	Lys	Thr	Lys	Pro	Asp	Ser	Glu	
			8340					8345					8350			
Trp	Ile	Val	Val	Thr	Ser	Thr	Leu	Arg	His	Cys	Lys	Tyr	Ser	Val	Thr	
		8355					8360					8365				
Lys	Leu	Ile	Glu	Gly	Lys	Glu	Tyr	Leu	Phe	Arg	Val	Arg	Ala	Glu	Asn	
	8370					8375					8380					
Arg	Phe	Gly	Pro	Gly	Pro	Pro	Cys	Val	Ser	Lys	Pro	Leu	Val	Ala	Lys	
8385					8390					8395					8400	
Asp	Pro	Phe	Gly	Pro	Pro	Asp	Ala	Pro	Asp	Lys	Pro	Ile	Val	Glu	Asp	
				8405					8410					8415		
Val	Thr	Ser	Asn	Ser	Met	Leu	Val	Lys	Trp	Asn	Glu	Pro	Lys	Asp	Asn	
			8420					8425					8430			
Gly	Ser	Pro	Ile	Leu	Gly	Tyr	Trp	Leu	Glu	Lys	Arg	Glu	Val	Asn	Ser	
		8435					8440					8445				
Thr	His	Trp	Ser	Arg	Val	Asn	Lys	Ser	Leu	Leu	Asn	Ala	Leu	Lys	Ala	
	8450					8455					8460					
Asn	Val	Asp	Gly	Leu	Leu	Glu	Gly	Leu	Thr	Tyr	Val	Phe	Arg	Val	Cys	

Thr Gln Pro Val Thr Val Ala Glu Pro Gln Glu Pro Pro Ala Val Glu
 8595 8600 8605
 Leu Asp Val Ser Val Lys Gly Gly Ile Gln Ile Met Ala Gly Lys Thr
 8610 8615 8620
 Leu Arg Ile Pro Ala Val Val Thr Gly Arg Pro Val Pro Thr Lys Val
 8625 8630 8635 8640
 Trp Thr Lys Glu Glu Gly Glu Leu Asp Lys Asp Arg Val Val Ile Asp
 8645 8650 8655
 Asn Val Gly Thr Lys Ser Glu Leu Ile Ile Lys Asp Ala Leu Arg Lys
 8660 8665 8670
 Asp His Gly Arg Tyr Val Ile Thr Ala Thr Asn Ser Cys Gly Ser Lys
 8675 8680 8685
 Phe Ala Ala Ala Arg Val Glu Val Phe Asp Val Pro Gly Pro Val Leu
 8690 8695 8700
 Asp Leu Lys Pro Val Val Thr Asn Arg Lys Met Cys Leu Leu Asn Trp
 8705 8710 8715 8720
 Ser Asp Pro Glu Asp Gly Gly Ser Glu Ile Thr Gly Phe Ile Ile
 8725 8730 8735
 Glu Arg Lys Asp Ala Lys Met His Thr Trp Arg Gln Pro Ile Glu Thr
 8740 8745 8750
 Glu Arg Ser Lys Cys Asp Ile Thr Gly Leu Leu Glu Gly Gln Glu Tyr
 8755 8760 8765
 Lys Phe Arg Val Ile Ala Lys Asn Lys Phe Gly Cys Gly Pro Pro Val
 8770 8775 8780
 Glu Ile Gly Pro Ile Leu Ala Val Asp Pro Leu Gly Pro Pro Thr Ser
 8785 8790 8795 8800
 Pro Glu Arg Leu Thr Tyr Thr Glu Arg Gln Arg Ser Thr Ile Thr Leu
 8805 8810 8815
 Asp Trp Lys Glu Pro Arg Ser Asn Gly Gly Ser Pro Ile Gln Gly Tyr
 8820 8825 8830
 Ile Ile Glu Lys Arg Arg His Asp Lys Pro Asp Phe Glu Arg Val Asn
 8835 8840 8845
 Lys Arg Leu Cys Pro Thr Thr Ser Phe Leu Val Glu Asn Leu Asp Glu
 8850 8855 8860
 His Gln Met Tyr Glu Phe Arg Val Lys Ala Val Asn Glu Ile Gly Glu
 8865 8870 8875 8880
 Ser Glu Pro Ser Leu Pro Leu Asn Val Val Ile Gln Asp Asp Glu Val
 8885 8890 8895
 Pro Pro Thr Ile Lys Leu Arg Leu Ser Val Arg Gly Asp Thr Ile Lys
 8900 8905 8910
 Val Lys Ala Gly Glu Pro Val His Ile Pro Ala Asp Val Thr Gly Leu
 8915 8920 8925
 Pro Met Pro Lys Ile Glu Trp Ser Lys Asn Glu Thr Val Ile Glu Lys
 8930 8935 8940
 Pro Thr Asp Ala Leu Gln Ile Thr Lys Glu Glu Val Ser Arg Ser Glu
 8945 8950 8955 8960
 Ala Lys Thr Glu Leu Ser Ile Pro Lys Ala Val Arg Glu Asp Lys Gly
 8965 8970 8975
 Thr Tyr Thr Val Thr Ala Ser Asn Arg Leu Gly Ser Val Phe Arg Asn
 8980 8985 8990
 Val His Val Glu Val Tyr Asp Arg Pro Ser Pro Pro Arg Asn Leu Ala
 8995 9000 9005
 Val Thr Asp Ile Lys Ala Glu Ser Cys Tyr Leu Thr Trp Asp Ala Pro
 9010 9015 9020
 Leu Asp Asn Gly Gly Ser Glu Ile Thr His Tyr Val Ile Asp Lys Arg
 9025 9030 9035 9040
 Asp Ala Ser Arg Lys Lys Ala Glu Trp Glu Glu Val Thr Asn Thr Ala
 9045 9050 9055
 Val Glu Lys Arg Tyr Gly Ile Trp Lys Leu Ile Pro Asn Gly Gln Tyr

Pro Pro Lys Asn Asp Gly Gly Ser Pro Val Thr His Tyr Ile Val Glu
 9540 9545 9550
 Cys Leu Ala Trp Asp Pro Thr Gly Thr Lys Lys Glu Ala Trp Arg Gln
 9555 9560 9565
 Cys Asn Lys Arg Asp Val Glu Leu Gln Phe Thr Val Glu Asp Leu
 9570 9575 9580
 Val Glu Gly Gly Glu Tyr Glu Phe Arg Val Lys Ala Val Asn Ala Ala
 9585 9590 9595 9600
 Gly Val Ser Lys Pro Ser Ala Thr Val Gly Pro Cys Asp Cys Gln Arg
 9605 9610 9615
 Pro Asp Met Pro Pro Ser Ile Asp Leu Lys Glu Phe Met Glu Val Glu
 9620 9625 9630
 Glu Gly Thr Asn Val Asn Ile Val Ala Lys Ile Lys Gly Val Pro Phe
 9635 9640 9645
 Pro Thr Leu Thr Trp Phe Lys Ala Pro Pro Lys Lys Pro Asp Asn Lys
 9650 9655 9660
 Glu Pro Val Leu Tyr Asp Thr His Val Asn Lys Leu Val Val Asp Asp
 9665 9670 9675 9680
 Thr Cys Thr Leu Val Ile Pro Gln Ser Arg Arg Ser Asp Thr Gly Leu
 9685 9690 9695
 Tyr Thr Ile Thr Ala Val Asn Asn Leu Gly Thr Ala Ser Lys Glu Met
 9700 9705 9710
 Arg Leu Asn Val Leu Gly Arg Pro Gly Pro Pro Val Gly Pro Ile Lys
 9715 9720 9725
 Phe Glu Ser Val Ser Ala Asp Gln Met Thr Leu Ser Trp Phe Pro Pro
 9730 9735 9740
 Lys Asp Asp Gly Gly Ser Lys Ile Thr Asn Tyr Val Ile Glu Lys Arg
 9745 9750 9755 9760
 Glu Ala Asn Arg Lys Thr Trp Val His Val Ser Ser Glu Pro Lys Glu
 9765 9770 9775
 Cys Thr Tyr Thr Ile Pro Lys Leu Leu Glu Gly His Glu Tyr Val Phe
 9780 9785 9790
 Arg Ile Met Ala Gln Asn Lys Tyr Gly Ile Gly Glu Pro Leu Asp Ser
 9795 9800 9805
 Glu Pro Glu Thr Ala Arg Asn Leu Phe Ser Val Pro Gly Ala Pro Asp
 9810 9815 9820
 Lys Pro Thr Val Ser Ser Val Thr Arg Asn Ser Met Thr Val Asn Trp
 9825 9830 9835 9840
 Glu Glu Pro Glu Tyr Asp Gly Gly Ser Pro Val Thr Gly Tyr Trp Leu
 9845 9850 9855
 Glu Met Lys Asp Thr Thr Ser Lys Arg Trp Lys Arg Val Asn Arg Asp
 9860 9865 9870
 Pro Ile Lys Ala Met Thr Leu Gly Val Ser Tyr Lys Val Thr Gly Leu
 9875 9880 9885
 Ile Glu Gly Ser Asp Tyr Gln Phe Arg Val Tyr Ala Ile Asn Ala Ala
 9890 9895 9900
 Gly Val Gly Pro Ala Ser Leu Pro Ser Asp Pro Ala Thr Ala Arg Asp
 9905 9910 9915 9920
 Pro Ile Ala Pro Pro Gly Pro Pro Phe Pro Lys Val Thr Asp Trp Thr
 9925 9930 9935
 Lys Ser Ser Ala Asp Leu Glu Trp Ser Pro Pro Leu Lys Asp Gly Gly
 9940 9945 9950
 Ser Lys Val Thr Gly Tyr Ile Val Glu Tyr Lys Glu Glu Gly Lys Glu
 9955 9960 9965
 Glu Trp Glu Lys Gly Lys Asp Lys Glu Val Arg Gly Thr Lys Leu Val
 9970 9975 9980
 Val Thr Gly Leu Lys Glu Gly Ala Phe Tyr Lys Phe Arg Val Ser
 9985 9990 9995
 Ala Val Asn Ile Ala Gly Ile Gly Glu Pro Gly Glu Val Thr Asp

10000	10005	10010
Val Ile Glu Met Lys	Asp Arg Leu Val Ser	Pro Asp Leu Gln Leu
10015	10020	10025
Asp Ala Ser Val Arg	Asp Arg Ile Val Val	His Ala Gly Gly Val
10030	10035	10040
Ile Arg Ile Ile Ala	Tyr Val Ser Gly Lys	Pro Pro Pro Thr Val
10045	10050	10055
Thr Trp Asn Met Asn	Glu Arg Thr Leu Pro	Gln Glu Ala Thr Ile
10060	10065	10070
Glu Thr Thr Ala Ile	Ser Ser Ser Met Val	Ile Lys Asn Cys Gln
10075	10080	10085
Arg Ser His Gln Gly	Val Tyr Ser Leu Leu	Ala Lys Asn Glu Ala
10090	10095	10100
Gly Glu Arg Lys Lys	Thr Ile Ile Val Asp	Val Leu Asp Val Pro
10105	10110	10115
Gly Pro Val Gly Thr	Pro Phe Leu Ala His	Asn Leu Thr Asn Glu
10120	10125	10130
Ser Cys Lys Leu Thr	Trp Phe Ser Pro Glu	Asp Asp Gly Gly Ser
10135	10140	10145
Pro Ile Thr Asn Tyr	Val Ile Glu Lys Arg	Glu Ser Asp Arg Arg
10150	10155	10160
Ala Trp Thr Pro Val	Thr Tyr Thr Val Thr	Arg Gln Asn Ala Thr
10165	10170	10175
Val Gln Gly Leu Ile	Gln Gly Lys Ala Tyr	Phe Phe Arg Ile Ala
10180	10185	10190
Ala Glu Asn Ser Ile	Gly Met Gly Pro Phe	Val Glu Thr Ser Glu
10195	10200	10205
Ala Leu Val Ile Arg	Glu Pro Ile Thr Val	Pro Glu Arg Pro Glu
10210	10215	10220
Asp Leu Glu Val Lys	Glu Val Thr Lys Asn	Thr Val Thr Leu Thr
10225	10230	10235
Trp Asn Pro Pro Lys	Tyr Asp Gly Gly Ser	Glu Ile Ile Asn Tyr
10240	10245	10250
Val Leu Glu Ser Arg	Leu Ile Gly Thr Glu	Lys Phe His Lys Val
10255	10260	10265
Thr Asn Asp Asn Leu	Leu Ser Arg Lys Tyr	Thr Val Lys Gly Leu
10270	10275	10280
Lys Glu Gly Asp Thr	Tyr Glu Tyr Arg Val	Ser Ala Val Asn Ile
10285	10290	10295
Val Gly Gln Gly Lys	Pro Ser Phe Cys Thr	Lys Pro Ile Thr Cys
10300	10305	10310
Lys Asp Glu Leu Ala	Pro Pro Thr Leu His	Leu Asp Phe Arg Asp
10315	10320	10325
Lys Leu Thr Ile Arg	Val Gly Glu Ala Phe	Ala Leu Thr Gly Arg
10330	10335	10340
Tyr Ser Gly Lys Pro	Lys Pro Lys Val Ser	Trp Phe Lys Asp Glu
10345	10350	10355
Ala Asp Val Leu Glu	Asp Asp Arg Thr His	Ile Lys Thr Thr Pro
10360	10365	10370
Ala Thr Leu Ala Leu	Glu Lys Ile Lys Ala	Lys Arg Ser Asp Ser
10375	10380	10385
Gly Lys Tyr Cys Val	Val Val Glu Asn Ser	Thr Gly Ser Arg Lys
10390	10395	10400
Gly Phe Cys Gln Val	Asn Val Val Asp His	Pro Gly Pro Pro Val
10405	10410	10415
Gly Pro Val Ser Phe	Asp Glu Val Thr Lys	Asp Tyr Met Val Ile
10420	10425	10430
Ser Trp Lys Pro Pro	Leu Asp Asp Gly Gly	Ser Lys Ile Thr Asn
10435	10440	10445

Tyr	Ile	Ile	Glu	Lys	Lys	Glu	Val	Gly	Lys	Asp	Val	Trp	Met	Pro
10450					10455					10460				
Val	Thr	Ser	Ala	Ser	Ala	Lys	Thr	Thr	Cys	Lys	Val	Ser	Lys	Leu
10465					10470					10475				
Leu	Glu	Gly	Lys	Asp	Tyr	Ile	Phe	Arg	Ile	His	Ala	Glu	Asn	Leu
10480					10485					10490				
Tyr	Gly	Ile	Ser	Asp	Pro	Leu	Val	Ser	Asp	Ser	Met	Lys	Ala	Lys
10495					10500					10505				
Asp	Arg	Phe	Arg	Val	Pro	Asp	Ala	Pro	Asp	Gln	Pro	Ile	Val	Thr
10510					10515					10520				
Glu	Val	Thr	Lys	Asp	Ser	Ala	Leu	Val	Thr	Trp	Asn	Lys	Pro	His
10525					10530					10535				
Asp	Gly	Gly	Lys	Pro	Ile	Thr	Asn	Tyr	Ile	Leu	Glu	Lys	Arg	Glu
10540					10545					10550				
Thr	Met	Ser	Lys	Arg	Trp	Ala	Arg	Val	Thr	Lys	Asp	Pro	Ile	His
10555					10560					10565				
Pro	Tyr	Thr	Lys	Phe	Arg	Val	Pro	Asp	Leu	Leu	Glu	Gly	Cys	Gln
10570					10575					10580				
Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Glu	Ile	Gly	Ile	Gly	Asp
10585					10590					10595				
Pro	Ser	Pro	Pro	Ser	Lys	Pro	Val	Phe	Ala	Lys	Asp	Pro	Ile	Ala
10600					10605					10610				
Lys	Pro	Ser	Pro	Pro	Val	Asn	Pro	Glu	Ala	Ile	Asp	Thr	Thr	Cys
10615					10620					10625				
Asn	Ser	Val	Asp	Leu	Thr	Trp	Gln	Pro	Pro	Arg	His	Asp	Gly	Gly
10630					10635					10640				
Ser	Lys	Ile	Leu	Gly	Tyr	Ile	Val	Glu	Tyr	Gln	Lys	Val	Gly	Asp
10645					10650					10655				
Glu	Glu	Trp	Arg	Arg	Ala	Asn	His	Thr	Pro	Glu	Ser	Cys	Pro	Glu
10660					10665					10670				
Thr	Lys	Tyr	Lys	Val	Thr	Gly	Leu	Arg	Asp	Gly	Gln	Thr	Tyr	Lys
10675					10680					10685				
Phe	Arg	Val	Leu	Ala	Val	Asn	Ala	Ala	Gly	Glu	Ser	Asp	Pro	Ala
10690					10695					10700				
His	Val	Pro	Glu	Pro	Val	Leu	Val	Lys	Asp	Arg	Leu	Glu	Pro	Pro
10705					10710					10715				
Glu	Leu	Ile	Leu	Asp	Ala	Asn	Met	Ala	Arg	Glu	Gln	His	Ile	Lys
10720					10725					10730				
Val	Gly	Asp	Thr	Leu	Arg	Leu	Ser	Ala	Ile	Ile	Lys	Gly	Val	Pro
10735					10740					10745				
Phe	Pro	Lys	Val	Thr	Trp	Lys	Lys	Glu	Asp	Arg	Asp	Ala	Pro	Thr
10750					10755					10760				
Lys	Ala	Arg	Ile	Asp	Val	Thr	Pro	Val	Gly	Ser	Lys	Leu	Glu	Ile
10765					10770					10775				
Arg	Asn	Ala	Ala	His	Glu	Asp	Gly	Gly	Ile	Tyr	Ser	Leu	Thr	Val
10780					10785					10790				
Glu	Asn	Pro	Ala	Gly	Ser	Lys	Thr	Val	Ser	Val	Lys	Val	Leu	Val
10795					10800					10805				
Leu	Asp	Lys	Pro	Gly	Pro	Pro	Arg	Asp	Leu	Glu	Val	Ser	Glu	Ile
10810					10815					10820				
Arg	Lys	Asp	Ser	Cys	Tyr	Leu	Thr	Trp	Lys	Glu	Pro	Leu	Asp	Asp
10825					10830					10835				
Gly	Gly	Ser	Val	Ile	Thr	Asn	Tyr	Val	Val	Glu	Arg	Arg	Asp	Val
10840					10845					10850				
Ala	Ser	Ala	Gln	Trp	Ser	Pro	Leu	Ser	Ala	Thr	Ser	Lys	Lys	Lys
10855					10860					10865				
Ser	His	Phe	Ala	Lys	His	Leu	Asn	Glu	Gly	Asn	Gln	Tyr	Leu	Phe
10870					10875					10880				
Arg	Val	Ala	Ala	Glu	Asn	Gln	Tyr	Gly	Arg	Gly	Pro	Phe	Val	Glu

10885	10890	10895
Thr Pro Lys Pro Ile	Lys Ala Leu Asp Pro	Leu His Pro Pro Gly
10900	10905	10910
Pro Pro Lys Asp Leu	His His Val Asp Val	Asp Lys Thr Glu Val
10915	10920	10925
Ser Leu Val Trp Asn	Lys Pro Asp Arg Asp	Gly Gly Ser Pro Ile
10930	10935	10940
Thr Gly Tyr Leu Val	Glu Tyr Gln Glu Glu	Gly Thr Gln Asp Trp
10945	10950	10955
Ile Lys Phe Lys Thr	Val Thr Asn Leu Glu	Cys Val Val Thr Gly
10960	10965	10970
Leu Gln Gln Gly Lys	Thr Tyr Arg Phe Arg	Val Lys Ala Glu Asn
10975	10980	10985
Ile Val Gly Leu Gly	Leu Pro Asp Thr Thr	Ile Pro Ile Glu Cys
10990	10995	11000
Gln Glu Lys Leu Val	Pro Pro Ser Val Glu	Leu Asp Val Lys Leu
11005	11010	11015
Ile Glu Gly Leu Val	Val Lys Ala Gly Thr	Thr Val Arg Phe Pro
11020	11025	11030
Ala Ile Ile Arg Gly	Val Pro Val Pro Thr	Ala Lys Trp Thr Thr
11035	11040	11045
Asp Gly Ser Glu Ile	Lys Thr Asp Glu His	Tyr Thr Val Glu Thr
11050	11055	11060
Asp Asn Phe Ser Ser	Val Leu Thr Ile Lys	Asn Cys Leu Arg Arg
11065	11070	11075
Asp Thr Gly Glu Tyr	Gln Ile Thr Val Ser	Asn Ala Ala Gly Ser
11080	11085	11090
Lys Thr Val Ala Val	His Leu Thr Val Leu	Asp Val Pro Gly Pro
11095	11100	11105
Pro Thr Gly Pro Ile	Asn Ile Leu Asp Val	Thr Pro Glu His Met
11110	11115	11120
Thr Ile Ser Trp Gln	Pro Pro Lys Asp Asp	Gly Gly Ser Pro Val
11125	11130	11135
Ile Asn Tyr Ile Val	Glu Lys Gln Asp Thr	Arg Lys Asp Thr Trp
11140	11145	11150
Gly Val Val Ser Ser	Gly Ser Ser Lys Thr	Lys Leu Lys Ile Pro
11155	11160	11165
His Leu Gln Lys Gly	Cys Glu Tyr Val Phe	Arg Val Arg Ala Glu
11170	11175	11180
Asn Lys Ile Gly Val	Gly Pro Pro Leu Asp	Ser Thr Pro Thr Val
11185	11190	11195
Ala Lys His Lys Phe	Ser Pro Pro Ser Pro	Pro Gly Lys Pro Val
11200	11205	11210
Val Thr Asp Ile Thr	Glu Asn Ala Ala Thr	Val Ser Trp Thr Leu
11215	11220	11225
Pro Lys Ser Asp Gly	Gly Ser Pro Ile Thr	Gly Tyr Tyr Met Glu
11230	11235	11240
Arg Arg Glu Val Thr	Gly Lys Trp Val Arg	Val Asn Lys Thr Pro
11245	11250	11255
Ile Ala Asp Leu Lys	Phe Arg Val Thr Gly	Leu Tyr Glu Gly Asn
11260	11265	11270
Thr Tyr Glu Phe Arg	Val Phe Ala Glu Asn	Leu Ala Gly Leu Ser
11275	11280	11285
Lys Pro Ser Pro Ser	Ser Asp Pro Ile Lys	Ala Cys Arg Pro Ile
11290	11295	11300
Lys Pro Pro Gly Pro	Pro Ile Asn Pro Lys	Leu Lys Asp Lys Ser
11305	11310	11315
Arg Glu Thr Ala Asp	Leu Val Trp Thr Lys	Pro Leu Ser Asp Gly
11320	11325	11330

Gly	Ser	Pro	Ile	Leu	Gly	Tyr	Val	Val	Glu	Cys	Gln	Lys	Pro	Gly
11335					11340					11345				
Thr	Ala	Gln	Trp	Asn	Arg	Ile	Asn	Lys	Asp	Glu	Leu	Ile	Arg	Gln
11350					11355					11360				
Cys	Ala	Phe	Arg	Val	Pro	Gly	Leu	Ile	Glu	Gly	Asn	Glu	Tyr	Arg
11365					11370					11375				
Phe	Arg	Ile	Lys	Ala	Ala	Asn	Ile	Val	Gly	Glu	Gly	Glu	Pro	Arg
11380					11385					11390				
Glu	Leu	Ala	Glu	Ser	Val	Ile	Ala	Lys	Asp	Ile	Leu	His	Pro	Pro
11395					11400					11405				
Glu	Val	Glu	Leu	Asp	Val	Thr	Cys	Arg	Asp	Val	Ile	Thr	Val	Arg
11410					11415					11420				
Val	Gly	Gln	Thr	Ile	Arg	Ile	Leu	Ala	Arg	Val	Lys	Gly	Arg	Pro
11425					11430					11435				
Glu	Pro	Asp	Ile	Thr	Trp	Thr	Lys	Glu	Gly	Lys	Val	Leu	Val	Arg
11440					11445					11450				
Glu	Lys	Arg	Val	Asp	Leu	Ile	Gln	Asp	Leu	Pro	Arg	Val	Glu	Leu
11455					11460					11465				
Gln	Ile	Lys	Glu	Ala	Val	Arg	Ala	Asp	His	Gly	Lys	Tyr	Ile	Ile
11470					11475					11480				
Ser	Ala	Lys	Asn	Ser	Ser	Gly	His	Ala	Gln	Gly	Ser	Ala	Ile	Val
11485					11490					11495				
Asn	Val	Leu	Asp	Arg	Pro	Gly	Pro	Cys	Gln	Asn	Leu	Lys	Val	Thr
11500					11505					11510				
Asn	Val	Thr	Lys	Glu	Asn	Cys	Thr	Ile	Ser	Trp	Glu	Asn	Pro	Leu
11515					11520					11525				
Asp	Asn	Gly	Gly	Ser	Glu	Ile	Thr	Asn	Phe	Ile	Val	Glu	Tyr	Arg
11530					11535					11540				
Lys	Pro	Asn	Gln	Lys	Gly	Trp	Ser	Ile	Val	Ala	Ser	Asp	Val	Thr
11545					11550					11555				
Lys	Arg	Leu	Ile	Lys	Ala	Asn	Leu	Leu	Ala	Asn	Asn	Glu	Tyr	Tyr
11560					11565					11570				
Phe	Arg	Val	Cys	Ala	Glu	Asn	Lys	Val	Gly	Val	Gly	Pro	Thr	Ile
11575					11580					11585				
Glu	Thr	Lys	Thr	Pro	Ile	Leu	Ala	Ile	Asn	Pro	Ile	Asp	Arg	Pro
11590					11595					11600				
Gly	Glu	Pro	Glu	Asn	Leu	His	Ile	Ala	Asp	Lys	Gly	Lys	Thr	Phe
11605					11610					11615				
Val	Tyr	Leu	Lys	Trp	Arg	Arg	Pro	Asp	Tyr	Asp	Gly	Gly	Ser	Pro
11620					11625					11630				
Asn	Leu	Ser	Tyr	His	Val	Glu	Arg	Arg	Leu	Lys	Gly	Ser	Asp	Asp
11635					11640					11645				
Trp	Glu	Arg	Val	His	Lys	Gly	Ser	Ile	Lys	Glu	Thr	His	Tyr	Met
11650					11655					11660				
Val	Asp	Arg	Cys	Val	Glu	Asn	Gln	Ile	Tyr	Glu	Phe	Arg	Val	Gln
11665					11670					11675				
Thr	Lys	Asn	Glu	Gly	Gly	Glu	Ser	Asp	Trp	Val	Lys	Thr	Glu	Glu
11680					11685					11690				
Val	Val	Val	Lys	Glu	Asp	Leu	Gln	Lys	Pro	Val	Leu	Asp	Leu	Lys
11695					11700					11705				
Leu	Ser	Gly	Val	Leu	Thr	Val	Lys	Ala	Gly	Asp	Thr	Ile	Arg	Leu
11710					11715					11720				
Glu	Ala	Gly	Val	Arg	Gly	Lys	Pro	Phe	Pro	Glu	Val	Ala	Trp	Thr
11725					11730					11735				
Lys	Asp	Lys	Asp	Ala	Thr	Asp	Leu	Thr	Arg	Ser	Pro	Arg	Val	Lys
11740					11745					11750				
Ile	Asp	Thr	Arg	Ala	Asp	Ser	Ser	Lys	Phe	Ser	Leu	Thr	Lys	Ala
11755					11760					11765				
Lys	Arg	Ser	Asp	Gly	Gly	Lys	Tyr	Val	Val	Thr	Ala	Thr	Asn	Thr

11770	Ala Gly Ser Phe Val	11775	Ala Tyr Ala Thr Val	11780	Asn Val Leu Asp Lys
11785	Pro Gly Pro Val Arg	11790	Asn Leu Lys Ile Val	11795	Asp Val Ser Ser Asp
11800	Arg Cys Thr Val Cys	11805	Trp Asp Pro Pro Glu	11810	Asp Asp Gly Gly Cys
11815	Glu Ile Gln Asn Tyr	11820	Ile Leu Glu Lys Cys	11825	Glu Thr Lys Arg Met
11830	Val Trp Ser Thr Tyr	11835	Ser Ala Thr Val Leu	11840	Thr Pro Gly Thr Thr
11845	Val Thr Arg Leu Ile	11850	Glu Gly Asn Glu Tyr	11855	Ile Phe Arg Val Arg
11860	Ala Glu Asn Lys Ile	11865	Gly Thr Gly Pro Pro	11870	Thr Glu Ser Lys Pro
11875	Val Ile Ala Lys Thr	11880	Lys Tyr Asp Lys Pro	11885	Gly Arg Pro Asp Pro
11890	Pro Glu Val Thr Lys	11895	Val Ser Lys Glu Glu	11900	Met Thr Val Val Trp
11905	Asn Pro Pro Glu Tyr	11910	Asp Gly Gly Lys Ser	11915	Ile Thr Gly Tyr Phe
11920	Leu Glu Lys Lys Glu	11925	Lys His Ser Thr Arg	11930	Trp Val Pro Val Asn
11935	Lys Ser Ala Ile Pro	11940	Glu Arg Arg Met Lys	11945	Val Gln Asn Leu Leu
11950	Pro Asp His Glu Tyr	11955	Gln Phe Arg Val Lys	11960	Ala Glu Asn Glu Ile
11965	Gly Ile Gly Glu Pro	11970	Ser Leu Pro Ser Arg	11975	Pro Val Val Ala Lys
11980	Asp Pro Ile Glu Pro	11985	Pro Gly Pro Pro Thr	11990	Asn Phe Arg Val Val
11995	Asp Thr Thr Lys His	12000	Ser Ile Thr Leu Gly	12005	Trp Gly Lys Pro Val
12010	Tyr Asp Gly Gly Ala	12015	Pro Ile Ile Gly Tyr	12020	Val Val Glu Met Arg
12025	Pro Lys Ile Ala Asp	12030	Ala Ser Pro Asp Glu	12035	Gly Trp Lys Arg Cys
12040	Asn Ala Ala Ala Gln	12045	Leu Val Arg Lys Glu	12050	Phe Thr Val Thr Ser
12055	Leu Asp Glu Asn Gln	12060	Glu Tyr Glu Phe Arg	12065	Val Cys Ala Gln Asn
12070	Gln Val Gly Ile Gly	12075	Arg Pro Ala Glu Leu	12080	Lys Glu Ala Ile Lys
12085	Pro Lys Glu Ile Leu	12090	Glu Pro Pro Glu Ile	12095	Asp Leu Asp Ala Ser
12100	Met Arg Lys Leu Val	12105	Ile Val Arg Ala Gly	12110	Cys Pro Ile Arg Leu
12115	Phe Ala Ile Val Arg	12120	Gly Arg Pro Ala Pro	12125	Lys Val Thr Trp Arg
12130	Lys Val Gly Ile Asp	12135	Asn Val Val Arg Lys	12140	Gly Gln Val Asp Leu
12145	Val Asp Thr Met Ala	12150	Phe Leu Val Ile Pro	12155	Asn Ser Thr Arg Asp
12160	Asp Ser Gly Lys Tyr	12165	Ser Leu Thr Leu Val	12170	Asn Pro Ala Gly Glu
12175	Lys Ala Val Phe Val	12180	Asn Val Arg Val Leu	12185	Asp Thr Pro Gly Pro
12190	Val Ser Asp Leu Lys	12195	Val Ser Asp Val Thr	12200	Lys Thr Ser Cys His
12205		12210		12215	

Val	Ser	Trp	Ala	Pro	Pro	Glu	Asn	Asp	Gly	Gly	Ser	Gln	Val	Thr
12220										12225				
His	Tyr	Ile	Val	Glu	Lys	Arg	Glu	Ala	Asp	Arg	Lys	Thr	Trp	Ser
12235										12240				
Thr	Val	Thr	Pro	Glu	Val	Lys	Lys	Thr	Ser	Phe	His	Val	Thr	Asn
12250										12255				
Leu	Val	Pro	Gly	Asn	Glu	Tyr	Tyr	Phe	Arg	Val	Thr	Ala	Val	Asn
12265										12270				
Glu	Tyr	Gly	Pro	Gly	Val	Pro	Thr	Asp	Val	Pro	Lys	Pro	Val	Leu
12280										12285				
Ala	Ser	Asp	Pro	Leu	Ser	Glu	Pro	Asp	Pro	Pro	Arg	Lys	Leu	Glu
12295										12300				
Ala	Thr	Glu	Met	Thr	Lys	Asn	Ser	Ala	Thr	Leu	Ala	Trp	Leu	Pro
12310										12315				
Pro	Leu	Arg	Asp	Gly	Gly	Ala	Lys	Ile	Asp	Gly	Tyr	Ile	Ile	Ser
12325										12330				
Tyr	Arg	Glu	Glu	Glu	Gln	Pro	Ala	Asp	Arg	Trp	Thr	Glu	Tyr	Ser
12340										12345				
Val	Val	Lys	Asp	Leu	Ser	Leu	Val	Val	Thr	Gly	Leu	Lys	Glu	Gly
12355										12360				
Lys	Lys	Tyr	Lys	Phe	Arg	Val	Ala	Ala	Arg	Asn	Ala	Val	Gly	Val
12370										12375				
Ser	Leu	Pro	Arg	Glu	Ala	Glu	Gly	Val	Tyr	Glu	Ala	Lys	Glu	Gln
12385										12390				
Leu	Leu	Pro	Pro	Lys	Ile	Leu	Met	Pro	Glu	Gln	Ile	Thr	Ile	Lys
12400										12405				
Ala	Gly	Lys	Lys	Leu	Arg	Ile	Glu	Ala	His	Val	Tyr	Gly	Lys	Pro
12415										12420				
His	Pro	Thr	Cys	Lys	Trp	Lys	Lys	Gly	Glu	Asp	Glu	Val	Val	Thr
12430										12435				
Ser	Ser	His	Leu	Ala	Val	His	Lys	Ala	Asp	Ser	Ser	Ser	Ile	Leu
12445										12450				
Ile	Ile	Lys	Asp	Val	Thr	Arg	Lys	Asp	Ser	Gly	Tyr	Tyr	Ser	Leu
12460										12465				
Thr	Ala	Glu	Asn	Ser	Ser	Gly	Thr	Asp	Thr	Gln	Lys	Ile	Lys	Val
12475										12480				
Val	Val	Met	Asp	Ala	Pro	Gly	Pro	Pro	Gln	Pro	Pro	Phe	Asp	Ile
12490										12495				
Ser	Asp	Ile	Asp	Ala	Asp	Ala	Cys	Ser	Leu	Ser	Trp	His	Ile	Pro
12505										12510				
Leu	Glu	Asp	Gly	Gly	Ser	Asn	Ile	Thr	Asn	Tyr	Ile	Val	Glu	Lys
12520										12525				
Cys	Asp	Val	Ser	Arg	Gly	Asp	Trp	Val	Thr	Ala	Leu	Ala	Ser	Val
12535										12540				
Thr	Lys	Thr	Ser	Cys	Arg	Val	Gly	Lys	Leu	Ile	Pro	Gly	Gln	Glu
12550										12555				
Tyr	Ile	Phe	Arg	Val	Arg	Ala	Glu	Asn	Arg	Phe	Gly	Ile	Ser	Glu
12565										12570				
Pro	Leu	Thr	Ser	Pro	Lys	Met	Val	Ala	Gln	Phe	Pro	Phe	Gly	Val
12580										12585				
Pro	Ser	Glu	Pro	Lys	Asn	Ala	Arg	Val	Thr	Lys	Val	Asn	Lys	Asp
12595										12600				
Cys	Ile	Phe	Val	Ala	Trp	Asp	Arg	Pro	Asp	Ser	Asp	Gly	Gly	Ser
12610										12615				
Pro	Ile	Ile	Gly	Tyr	Leu	Ile	Glu	Arg	Lys	Glu	Arg	Asn	Ser	Leu
12625										12630				
Leu	Trp	Val	Lys	Ala	Asn	Asp	Thr	Leu	Val	Arg	Ser	Thr	Glu	Tyr
12640										12645				
Pro	Cys	Ala	Gly	Leu	Val	Glu	Gly	Leu	Glu	Tyr	Ser	Phe	Arg	Ile

12655	Tyr Ala Leu Asn Lys	12660	Ala Gly Ser Ser Pro	12665	Pro Ser Lys Pro Thr
12670	Glu Tyr Val Thr Ala	12675	Arg Met Pro Val Asp	12680	Pro Pro Gly Lys Pro
12685	Glu Val Ile Asp Val	12690	Thr Lys Ser Thr Val	12695	Ser Leu Ile Trp Ala
12700	Arg Pro Lys His Asp	12705	Gly Gly Ser Lys Ile	12710	Ile Gly Tyr Phe Val
12715	Glu Ala Cys Lys Leu	12720	Pro Gly Asp Lys Trp	12725	Val Arg Cys Asn Thr
12730	Ala Pro His Gln Ile	12735	Pro Gln Glu Glu Tyr	12740	Thr Ala Thr Gly Leu
12745	Glu Glu Lys Ala Gln	12750	Tyr Gln Phe Arg Ala	12755	Ile Ala Arg Thr Ala
12760	Val Asn Ile Ser Pro	12765	Pro Ser Glu Pro Ser	12770	Asp Pro Val Thr Ile
12775	Leu Ala Glu Asn Val	12780	Pro Pro Arg Ile Asp	12785	Leu Ser Val Ala Met
12790	Lys Ser Leu Leu Thr	12795	Val Lys Ala Gly Thr	12800	Asn Val Cys Leu Asp
12805	Ala Thr Val Phe Gly	12810	Lys Pro Met Pro Thr	12815	Val Ser Trp Lys Lys
12820	Asp Gly Thr Leu Leu	12825	Lys Pro Ala Glu Gly	12830	Ile Lys Met Ala Met
12835	Gln Arg Asn Leu Cys	12840	Thr Leu Glu Leu Phe	12845	Ser Val Asn Arg Lys
12850	Asp Ser Gly Asp Tyr	12855	Thr Ile Thr Ala Glu	12860	Asn Ser Ser Gly Ser
12865	Lys Ser Ala Thr Ile	12870	Lys Leu Lys Val Leu	12875	Asp Lys Pro Gly Pro
12880	Pro Ala Ser Val Lys	12885	Ile Asn Lys Met Tyr	12890	Ser Asp Arg Ala Met
12895	Leu Ser Trp Glu Pro	12900	Pro Leu Glu Asp Gly	12905	Gly Ser Glu Ile Thr
12910	Asn Tyr Ile Val Asp	12915	Lys Arg Glu Thr Ser	12920	Arg Pro Asn Trp Ala
12925	Gln Val Ser Ala Thr	12930	Val Pro Ile Thr Ser	12935	Cys Ser Val Glu Lys
12940	Leu Ile Glu Gly His	12945	Glu Tyr Gln Phe Arg	12950	Ile Cys Ala Glu Asn
12955	Lys Tyr Gly Val Gly	12960	Asp Pro Val Phe Thr	12965	Glu Pro Ala Ile Ala
12970	Lys Asn Pro Tyr Asp	12975	Pro Pro Gly Arg Cys	12980	Asp Pro Pro Val Ile
12985	Ser Asn Ile Thr Lys	12990	Asp His Met Thr Val	12995	Ser Trp Lys Pro Pro
13000	Ala Asp Asp Gly Gly	13005	Ser Pro Ile Thr Gly	13010	Tyr Leu Leu Glu Lys
13015	Arg Glu Thr Gln Ala	13020	Val Asn Trp Thr Lys	13025	Val Asn Arg Lys Pro
13030	Ile Ile Glu Arg Thr	13035	Leu Lys Ala Thr Gly	13040	Leu Gln Glu Gly Thr
13045	Glu Tyr Glu Phe Arg	13050	Val Thr Ala Ile Asn	13055	Lys Ala Gly Pro Gly
13060	Lys Pro Ser Asp Ala	13065	Ser Lys Ala Ala Tyr	13070	Ala Arg Asp Pro Gln
13075	Tyr Pro Pro Ala Pro	13080	Pro Ala Phe Pro Lys	13085	Val Tyr Asp Thr Thr
13090		13095		13100	

Arg	Ser	Ser	Val	Ser	Leu	Ser	Trp	Gly	Lys	Pro	Ala	Tyr	Asp	Gly
13105					13110					13115				
Gly	Ser	Pro	Ile	Ile	Gly	Tyr	Leu	Val	Glu	Val	Lys	Arg	Ala	Asp
13120					13125					13130				
Ser	Asp	Asn	Trp	Val	Arg	Cys	Asn	Leu	Pro	Gln	Asn	Leu	Gln	Lys
13135					13140					13145				
Thr	Arg	Phe	Glu	Val	Thr	Gly	Leu	Met	Glu	Asp	Thr	Gln	Tyr	Gln
13150					13155					13160				
Phe	Arg	Val	Tyr	Ala	Val	Asn	Lys	Ile	Gly	Tyr	Ser	Asp	Pro	Ser
13165					13170					13175				
Asp	Val	Pro	Asp	Lys	His	Tyr	Pro	Lys	Asp	Ile	Leu	Ile	Pro	Pro
13180					13185					13190				
Glu	Gly	Glu	His	Asp	Ala	Asp	Leu	Arg	Lys	Thr	Leu	Ile	Leu	Arg
13195					13200					13205				
Ala	Gly	Val	Thr	Met	Arg	Leu	Tyr	Val	Pro	Val	Lys	Gly	Arg	Pro
13210					13215					13220				
Pro	Pro	Lys	Ile	Thr	Trp	Ser	Lys	Pro	Asn	Val	Asn	Leu	Arg	Asp
13225					13230					13235				
Arg	Ile	Gly	Leu	Asp	Ile	Lys	Ser	Thr	Asp	Phe	Asp	Thr	Phe	Leu
13240					13245					13250				
Arg	Cys	Glu	Asn	Val	Asn	Lys	Tyr	Asp	Ala	Gly	Lys	Tyr	Ile	Leu
13255					13260					13265				
Thr	Leu	Glu	Asn	Ser	Cys	Gly	Lys	Lys	Glu	Tyr	Thr	Ile	Val	Val
13270					13275					13280				
Lys	Val	Leu	Asp	Thr	Pro	Gly	Pro	Pro	Ile	Asn	Val	Thr	Val	Lys
13285					13290					13295				
Glu	Ile	Ser	Lys	Asp	Ser	Ala	Tyr	Val	Thr	Trp	Glu	Pro	Pro	Ile
13300					13305					13310				
Ile	Asp	Gly	Gly	Ser	Pro	Ile	Ile	Asn	Tyr	Val	Val	Gln	Lys	Arg
13315					13320					13325				
Asp	Ala	Glu	Arg	Lys	Ser	Trp	Ser	Thr	Val	Thr	Thr	Glu	Cys	Ser
13330					13335					13340				
Lys	Thr	Ser	Phe	Arg	Val	Pro	Asn	Leu	Glu	Glu	Gly	Lys	Ser	Tyr
13345					13350					13355				
Phe	Phe	Arg	Val	Phe	Ala	Glu	Asn	Glu	Tyr	Gly	Ile	Gly	Asp	Pro
13360					13365					13370				
Gly	Glu	Thr	Arg	Asp	Ala	Val	Lys	Ala	Ser	Gln	Thr	Pro	Gly	Pro
13375					13380					13385				
Val	Val	Asp	Leu	Lys	Val	Arg	Ser	Val	Ser	Lys	Ser	Ser	Cys	Ser
13390					13395					13400				
Ile	Gly	Trp	Lys	Lys	Pro	His	Ser	Asp	Gly	Gly	Ser	Arg	Ile	Ile
13405					13410					13415				
Gly	Tyr	Val	Val	Asp	Phe	Leu	Thr	Glu	Glu	Asn	Lys	Trp	Gln	Arg
13420					13425					13430				
Val	Met	Lys	Ser	Leu	Ser	Leu	Gln	Tyr	Ser	Ala	Lys	Asp	Leu	Thr
13435					13440					13445				
Glu	Gly	Lys	Glu	Tyr	Thr	Phe	Arg	Val	Ser	Ala	Glu	Asn	Glu	Asn
13450					13455					13460				
Gly	Glu	Gly	Thr	Pro	Ser	Glu	Ile	Thr	Val	Val	Ala	Arg	Asp	Asp
13465					13470					13475				
Val	Val	Ala	Pro	Asp	Leu	Asp	Leu	Lys	Gly	Leu	Pro	Asp	Leu	Cys
13480					13485					13490				
Tyr	Leu	Ala	Lys	Glu	Asn	Ser	Asn	Phe	Arg	Leu	Lys	Ile	Pro	Ile
13495					13500					13505				
Lys	Gly	Lys	Pro	Ala	Pro	Ser	Val	Ser	Trp	Lys	Lys	Gly	Glu	Asp
13510					13515					13520				
Pro	Leu	Ala	Thr	Asp	Thr	Arg	Val	Ser	Val	Glu	Ser	Ser	Ala	Val
13525					13530					13535				
Asn	Thr	Thr	Leu	Ile	Val	Tyr	Asp	Cys	Gln	Lys	Ser	Asp	Ala	Gly

13540	Lys Tyr Thr Ile Thr	13545	Leu Lys Asn Val Ala	13550	Gly Thr Lys Glu Gly
13555	Thr Ile Ser Ile Lys	13560	Val Val Gly Lys Pro	13565	Gly Ile Pro Thr Gly
13570	Pro Ile Lys Phe Asp	13575	Glu Val Thr Ala Glu	13580	Ala Met Thr Leu Lys
13585	Trp Ala Pro Pro Lys	13590	Asp Asp Gly Gly Ser	13595	Glu Ile Thr Asn Tyr
13600	Ile Leu Glu Lys Arg	13605	Asp Ser Val Asn Asn	13610	Lys Trp Val Thr Cys
13615	Ala Ser Ala Val Gln	13620	Lys Thr Thr Phe Arg	13625	Val Thr Arg Leu His
13630	Glu Gly Met Glu Tyr	13635	Thr Phe Arg Val Ser	13640	Ala Glu Asn Lys Tyr
13645	Gly Val Gly Glu Gly	13650	Leu Lys Ser Glu Pro	13655	Ile Val Ala Arg His
13660	Pro Phe Asp Val Pro	13665	Asp Ala Pro Pro Pro	13670	Pro Asn Ile Val Asp
13675	Val Arg His Asp Ser	13680	Val Ser Leu Thr Trp	13685	Thr Asp Pro Lys Lys
13690	Thr Gly Gly Ser Pro	13695	Ile Thr Gly Tyr His	13700	Leu Glu Phe Lys Glu
13705	Arg Asn Ser Leu Leu	13710	Trp Lys Arg Ala Asn	13715	Lys Thr Pro Ile Arg
13720	Met Arg Asp Phe Lys	13725	Val Thr Gly Leu Thr	13730	Glu Gly Leu Glu Tyr
13735	Glu Phe Arg Val Met	13740	Ala Ile Asn Leu Ala	13745	Gly Val Gly Lys Pro
13750	Ser Leu Pro Ser Glu	13755	Pro Val Val Ala Leu	13760	Asp Pro Ile Asp Pro
13765	Pro Gly Lys Pro Glu	13770	Val Ile Asn Ile Thr	13775	Arg Asn Ser Val Thr
13780	Leu Ile Trp Thr Glu	13785	Pro Lys Tyr Asp Gly	13790	Gly His Lys Leu Thr
13795	Gly Tyr Ile Val Glu	13800	Lys Arg Asp Leu Pro	13805	Ser Lys Ser Trp Met
13810	Lys Ala Asn His Val	13815	Asn Val Pro Glu Cys	13820	Ala Phe Thr Val Thr
13825	Asp Leu Val Glu Gly	13830	Gly Lys Tyr Glu Phe	13835	Arg Ile Arg Ala Lys
13840	Asn Thr Ala Gly Ala	13845	Ile Ser Ala Pro Ser	13850	Glu Ser Thr Glu Thr
13855	Ile Ile Cys Lys Asp	13860	Glu Tyr Glu Ala Pro	13865	Thr Ile Val Leu Asp
13870	Pro Thr Ile Lys Asp	13875	Gly Leu Thr Ile Lys	13880	Ala Gly Asp Thr Ile
13885	Val Leu Asn Ala Ile	13890	Ser Ile Leu Gly Lys	13895	Pro Leu Pro Lys Ser
13900	Ser Trp Ser Lys Ala	13905	Gly Lys Asp Ile Arg	13910	Pro Ser Asp Ile Thr
13915	Gln Ile Thr Ser Thr	13920	Pro Thr Ser Ser Met	13925	Leu Thr Ile Lys Tyr
13930	Ala Thr Arg Lys Asp	13935	Ala Gly Glu Tyr Thr	13940	Ile Thr Ala Thr Asn
13945	Pro Phe Gly Thr Lys	13950	Val Glu His Val Lys	13955	Val Thr Val Leu Asp
13960	Val Pro Gly Pro Pro	13965	Gly Pro Val Glu Ile	13970	Ser Asn Val Ser Ala
13975		13980		13985	

Glu	Lys	Ala	Thr	Leu	Thr	Trp	Thr	Pro	Pro	Leu	Glu	Asp	Gly	Gly
13990										13995				
Ser	Pro	Ile	Lys	Ser	Tyr	Ile	Leu	Glu	Lys	Arg	Glu	Thr	Ser	Arg
14005										14010				
Leu	Leu	Trp	Thr	Val	Val	Ser	Glu	Asp	Ile	Gln	Ser	Cys	Arg	His
14020										14025				
Val	Ala	Thr	Lys	Leu	Ile	Gln	Gly	Asn	Glu	Tyr	Ile	Phe	Arg	Val
14035										14040				
Ser	Ala	Val	Asn	His	Tyr	Gly	Lys	Gly	Glu	Pro	Val	Gln	Ser	Glu
14050										14055				
Pro	Val	Lys	Met	Val	Asp	Arg	Phe	Gly	Pro	Pro	Gly	Pro	Pro	Glu
14065										14070				
Lys	Pro	Glu	Val	Ser	Asn	Val	Thr	Lys	Asn	Thr	Ala	Thr	Val	Ser
14080										14085				
Trp	Lys	Arg	Pro	Val	Asp	Asp	Gly	Gly	Ser	Glu	Ile	Thr	Gly	Tyr
14095										14100				
His	Val	Glu	Arg	Arg	Glu	Lys	Lys	Ser	Leu	Arg	Trp	Val	Arg	Ala
14110										14115				
Ile	Lys	Thr	Pro	Val	Ser	Asp	Leu	Arg	Cys	Lys	Val	Thr	Gly	Leu
14125										14130				
Gln	Glu	Gly	Ser	Thr	Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Arg
14140										14145				
Ala	Gly	Ile	Gly	Pro	Pro	Ser	Glu	Ala	Ser	Asp	Ser	Val	Leu	Met
14155										14160				
Lys	Asp	Ala	Ala	Tyr	Pro	Pro	Gly	Pro	Pro	Ser	Asn	Pro	His	Val
14170										14175				
Thr	Asp	Thr	Thr	Lys	Lys	Ser	Ala	Ser	Leu	Ala	Trp	Gly	Lys	Pro
14185										14190				
His	Tyr	Asp	Gly	Gly	Leu	Glu	Ile	Thr	Gly	Tyr	Val	Val	Glu	His
14200										14205				
Gln	Lys	Val	Gly	Asp	Glu	Ala	Trp	Ile	Lys	Asp	Thr	Thr	Gly	Thr
14215										14220				
Ala	Leu	Arg	Ile	Thr	Gln	Phe	Val	Val	Pro	Asp	Leu	Gln	Thr	Lys
14230										14235				
Glu	Lys	Tyr	Asn	Phe	Arg	Ile	Ser	Ala	Ile	Asn	Asp	Ala	Gly	Val
14245										14250				
Gly	Glu	Pro	Ala	Val	Ile	Pro	Asp	Val	Glu	Ile	Val	Glu	Arg	Glu
14260										14265				
Met	Ala	Pro	Asp	Phe	Glu	Leu	Asp	Ala	Glu	Leu	Arg	Arg	Thr	Leu
14275										14280				
Val	Val	Arg	Ala	Gly	Leu	Ser	Ile	Arg	Ile	Phe	Val	Pro	Ile	Lys
14290										14295				
Gly	Arg	Pro	Ala	Pro	Glu	Val	Thr	Trp	Thr	Lys	Asp	Asn	Ile	Asn
14305										14310				
Leu	Lys	Asn	Arg	Ala	Asn	Ile	Glu	Asn	Thr	Glu	Ser	Phe	Thr	Leu
14320										14325				
Leu	Ile	Ile	Pro	Glu	Cys	Asn	Arg	Tyr	Asp	Thr	Gly	Lys	Phe	Val
14335										14340				
Met	Thr	Ile	Glu	Asn	Pro	Ala	Gly	Lys	Lys	Ser	Gly	Phe	Val	Asn
14350										14355				
Val	Arg	Val	Leu	Asp	Thr	Pro	Gly	Pro	Val	Leu	Asn	Leu	Arg	Pro
14365										14370				
Thr	Asp	Ile	Thr	Lys	Asp	Ser	Val	Thr	Leu	His	Trp	Asp	Leu	Pro
14380										14385				
Leu	Ile	Asp	Gly	Gly	Ser	Arg	Ile	Thr	Asn	Tyr	Ile	Val	Glu	Lys
14395										14400				
Arg	Glu	Ala	Thr	Arg	Lys	Ser	Tyr	Ser	Thr	Ala	Thr	Thr	Lys	Cys
14410										14415				
His	Lys	Cys	Thr	Tyr	Lys	Val	Thr	Gly	Leu	Ser	Glu	Gly	Cys	Glu

14425	14430	14435
Tyr Phe Phe Arg Val	Met Ala Glu Asn Glu	Tyr Gly Ile Gly Glu
14440	14445	14450
Pro Thr Glu Thr Thr	Glu Pro Val Lys Ala	Ser Glu Ala Pro Ser
14455	14460	14465
Pro Pro Asp Ser Leu	Asn Ile Met Asp Ile	Thr Lys Ser Thr Val
14470	14475	14480
Ser Leu Ala Trp Pro	Lys Pro Lys His Asp	Gly Gly Ser Lys Ile
14485	14490	14495
Thr Gly Tyr Val Ile	Glu Ala Gln Arg Lys	Gly Ser Asp Gln Trp
14500	14505	14510
Thr His Ile Thr Thr	Val Lys Gly Leu Glu	Cys Val Val Arg Asn
14515	14520	14525
Leu Thr Glu Gly Glu	Glu Tyr Thr Phe Gln	Val Met Ala Val Asn
14530	14535	14540
Ser Ala Gly Arg Ser	Ala Pro Arg Glu Ser	Arg Pro Val Ile Val
14545	14550	14555
Lys Glu Gln Thr Met	Leu Pro Glu Leu Asp	Leu Arg Gly Ile Tyr
14560	14565	14570
Gln Lys Leu Val Ile	Ala Lys Ala Gly Asp	Asn Ile Lys Val Glu
14575	14580	14585
Ile Pro Val Leu Gly	Arg Pro Lys Pro Thr	Val Thr Trp Lys Lys
14590	14595	14600
Gly Asp Gln Ile Leu	Lys Gln Thr Gln Arg	Val Asn Phe Glu Thr
14605	14610	14615
Thr Ala Thr Ser Thr	Ile Leu Asn Ile Asn	Glu Cys Val Arg Ser
14620	14625	14630
Asp Ser Gly Pro Tyr	Pro Leu Thr Ala Arg	Asn Ile Val Gly Glu
14635	14640	14645
Val Gly Asp Val Ile	Thr Ile Gln Val His	Asp Ile Pro Gly Pro
14650	14655	14660
Pro Thr Gly Pro Ile	Lys Phe Asp Glu Val	Ser Ser Asp Phe Val
14665	14670	14675
Thr Phe Ser Trp Asp	Pro Pro Glu Asn Asp	Gly Gly Val Pro Ile
14680	14685	14690
Ser Asn Tyr Val Val	Glu Met Arg Gln Thr	Asp Ser Thr Thr Trp
14695	14700	14705
Val Glu Leu Ala Thr	Thr Val Ile Arg Thr	Thr Tyr Lys Ala Thr
14710	14715	14720
Arg Leu Thr Thr Gly	Leu Glu Tyr Gln Phe	Arg Val Lys Ala Gln
14725	14730	14735
Asn Arg Tyr Gly Val	Gly Pro Gly Ile Thr	Ser Ala Trp Ile Val
14740	14745	14750
Ala Asn Tyr Pro Phe	Lys Val Pro Gly Pro	Pro Gly Thr Pro Gln
14755	14760	14765
Val Thr Ala Val Thr	Lys Asp Ser Met Thr	Ile Ser Trp His Glu
14770	14775	14780
Pro Leu Ser Asp Gly	Gly Ser Pro Ile Leu	Gly Tyr His Val Glu
14785	14790	14795
Arg Lys Glu Arg Asn	Gly Ile Leu Trp Gln	Thr Val Ser Lys Ala
14800	14805	14810
Leu Val Pro Gly Asn	Ile Phe Lys Ser Ser	Gly Leu Thr Asp Gly
14815	14820	14825
Ile Ala Tyr Glu Phe	Arg Val Ile Ala Glu	Asn Met Ala Gly Lys
14830	14835	14840
Ser Lys Pro Ser Lys	Pro Ser Glu Pro Met	Leu Ala Leu Asp Pro
14845	14850	14855
Ile Asp Pro Pro Gly	Lys Pro Val Pro Leu	Asn Ile Thr Arg His
14860	14865	14870

Thr	Val	Thr	Leu	Lys	Trp	Ala	Lys	Pro	Glu	Tyr	Thr	Gly	Gly	Phe
14875					14880					14885				
Lys	Ile	Thr	Ser	Tyr	Ile	Val	Glu	Lys	Arg	Asp	Leu	Pro	Asn	Gly
14890					14895					14900				
Arg	Trp	Leu	Lys	Ala	Asn	Phe	Ser	Asn	Ile	Leu	Glu	Asn	Glu	Phe
14905					14910					14915				
Thr	Val	Ser	Gly	Leu	Thr	Glu	Asp	Ala	Ala	Tyr	Glu	Phe	Arg	Val
14920					14925					14930				
Ile	Ala	Lys	Asn	Ala	Ala	Gly	Ala	Ile	Ser	Pro	Pro	Ser	Glu	Pro
14935					14940					14945				
Ser	Asp	Ala	Ile	Thr	Cys	Arg	Asp	Asp	Val	Glu	Ala	Pro	Lys	Ile
14950					14955					14960				
Lys	Val	Asp	Val	Lys	Phe	Lys	Asp	Thr	Val	Ile	Leu	Lys	Ala	Gly
14965					14970					14975				
Glu	Ala	Phe	Arg	Leu	Glu	Ala	Asp	Val	Ser	Gly	Arg	Pro	Pro	Pro
14980					14985					14990				
Thr	Met	Glu	Trp	Ser	Lys	Asp	Gly	Lys	Glu	Leu	Glu	Gly	Thr	Ala
14995					15000					15005				
Lys	Leu	Glu	Ile	Lys	Ile	Ala	Asp	Phe	Ser	Thr	Asn	Leu	Val	Asn
15010					15015					15020				
Lys	Asp	Ser	Thr	Arg	Arg	Asp	Ser	Gly	Ala	Tyr	Thr	Leu	Thr	Ala
15025					15030					15035				
Thr	Asn	Pro	Gly	Gly	Phe	Ala	Lys	His	Ile	Phe	Asn	Val	Lys	Val
15040					15045					15050				
Leu	Asp	Arg	Pro	Gly	Pro	Pro	Glu	Gly	Pro	Leu	Ala	Val	Thr	Glu
15055					15060					15065				
Val	Thr	Ser	Glu	Lys	Cys	Val	Leu	Ser	Trp	Phe	Pro	Pro	Leu	Asp
15070					15075					15080				
Asp	Gly	Gly	Ala	Lys	Ile	Asp	His	Tyr	Ile	Val	Gln	Lys	Arg	Glu
15085					15090					15095				
Thr	Ser	Arg	Leu	Ala	Trp	Thr	Asn	Val	Ala	Ser	Glu	Val	Gln	Val
15100					15105					15110				
Thr	Lys	Leu	Lys	Val	Thr	Lys	Leu	Leu	Lys	Gly	Asn	Glu	Tyr	Ile
15115					15120					15125				
Phe	Arg	Val	Met	Ala	Val	Asn	Lys	Tyr	Gly	Val	Gly	Glu	Pro	Leu
15130					15135					15140				
Glu	Ser	Glu	Pro	Val	Leu	Ala	Val	Asn	Pro	Tyr	Gly	Pro	Pro	Asp
15145					15150					15155				
Pro	Pro	Lys	Asn	Pro	Glu	Val	Thr	Thr	Ile	Thr	Lys	Asp	Ser	Met
15160					15165					15170				
Val	Val	Cys	Trp	Gly	His	Pro	Asp	Ser	Asp	Gly	Gly	Ser	Glu	Ile
15175					15180					15185				
Ile	Asn	Tyr	Ile	Val	Glu	Arg	Arg	Asp	Lys	Ala	Gly	Gln	Arg	Trp
15190					15195					15200				
Ile	Lys	Cys	Asn	Lys	Lys	Thr	Leu	Thr	Asp	Leu	Arg	Tyr	Lys	Val
15205					15210					15215				
Ser	Gly	Leu	Thr	Glu	Gly	His	Glu	Tyr	Glu	Phe	Arg	Ile	Met	Ala
15220					15225					15230				
Glu	Asn	Ala	Ala	Gly	Ile	Ser	Ala	Pro	Ser	Pro	Thr	Ser	Pro	Phe
15235					15240					15245				
Tyr	Lys	Ala	Cys	Asp	Thr	Val	Phe	Lys	Pro	Gly	Pro	Pro	Gly	Asn
15250					15255					15260				
Pro	Arg	Val	Leu	Asp	Thr	Ser	Arg	Ser	Ser	Ile	Ser	Ile	Ala	Trp
15265					15270					15275				
Asn	Lys	Pro	Ile	Tyr	Asp	Gly	Gly	Ser	Glu	Ile	Thr	Gly	Tyr	Met
15280					15285					15290				
Val	Glu	Ile	Ala	Leu	Pro	Glu	Glu	Asp	Glu	Trp	Gln	Ile	Val	Thr
15295					15300					15305				
Pro	Pro	Ala	Gly	Leu	Lys	Ala	Thr	Ser	Tyr	Thr	Ile	Thr	Gly	Leu

15310	Thr Glu Asn Gln Glu	15315	Tyr Lys Ile Arg Ile	15320	Tyr Ala Met Asn Ser
15325	Glu Gly Leu Gly Glu	15330	Pro Ala Leu Val Pro	15335	Gly Thr Pro Lys Ala
15340	Glu Asp Arg Met Leu	15345	Pro Pro Glu Ile Glu	15350	Leu Asp Ala Asp Leu
15355	Arg Lys Val Val Thr	15360	Ile Arg Ala Cys Cys	15365	Thr Leu Arg Leu Phe
15370	Val Pro Ile Lys Gly	15375	Arg Pro Asp Pro Glu	15380	Val Lys Trp Ala Arg
15385	Asp His Gly Glu Ser	15390	Leu Asp Lys Ala Ser	15395	Ile Glu Ser Ala Ser
15400	Ser Tyr Thr Leu Leu	15405	Ile Val Gly Asn Val	15410	Asn Arg Phe Asp Ser
15415	Gly Lys Tyr Ile Leu	15420	Thr Val Glu Asn Ser	15425	Ser Gly Ser Lys Ser
15430	Ala Phe Val Asn Val	15435	Arg Val Leu Asp Thr	15440	Pro Gly Pro Pro Gln
15445	Asp Leu Lys Val Lys	15450	Glu Val Thr Lys Thr	15455	Ser Val Thr Leu Thr
15460	Trp Asp Pro Pro Leu	15465	Leu Asp Gly Gly Ser	15470	Lys Ile Lys Asn Tyr
15475	Ile Val Glu Lys Arg	15480	Glu Ser Thr Arg Lys	15485	Ala Tyr Ser Thr Val
15490	Ala Thr Asn Cys His	15495	Lys Thr Ser Trp Lys	15500	Val Asp Gln Leu Gln
15505	Glu Gly Cys Ser Tyr	15510	Tyr Phe Arg Val Leu	15515	Ala Glu Asn Glu Tyr
15520	Gly Ile Gly Leu Pro	15525	Ala Glu Thr Ala Glu	15530	Ser Val Lys Ala Ser
15535	Glu Arg Pro Leu Pro	15540	Pro Gly Lys Ile Thr	15545	Leu Met Asp Val Thr
15550	Arg Asn Ser Val Ser	15555	Leu Ser Trp Glu Lys	15560	Pro Glu His Asp Gly
15565	Gly Ser Arg Ile Leu	15570	Gly Tyr Ile Val Glu	15575	Met Gln Thr Lys Gly
15580	Ser Asp Lys Trp Ala	15585	Thr Cys Ala Thr Val	15590	Lys Val Thr Glu Ala
15595	Thr Ile Thr Gly Leu	15600	Ile Gln Gly Glu Glu	15605	Tyr Ser Phe Arg Val
15610	Ser Ala Gln Asn Glu	15615	Lys Gly Ile Ser Asp	15620	Pro Arg Gln Leu Ser
15625	Val Pro Val Ile Ala	15630	Lys Asp Leu Val Ile	15635	Pro Pro Ala Phe Lys
15640	Leu Leu Phe Asn Thr	15645	Phe Thr Val Leu Ala	15650	Gly Glu Asp Leu Lys
15655	Val Asp Val Pro Phe	15660	Ile Gly Arg Pro Thr	15665	Pro Ala Val Thr Trp
15670	His Lys Asp Asn Val	15675	Pro Leu Lys Gln Thr	15680	Thr Arg Val Asn Ala
15685	Glu Ser Thr Glu Asn	15690	Asn Ser Leu Leu Thr	15695	Ile Lys Asp Ala Cys
15700	Arg Glu Asp Val Gly	15705	His Tyr Val Val Lys	15710	Leu Thr Asn Ser Ala
15715	Gly Glu Ala Ile Glu	15720	Thr Leu Asn Val Ile	15725	Val Leu Asp Lys Pro
15730	Gly Pro Pro Thr Gly	15735	Pro Val Lys Met Asp	15740	Glu Val Thr Ala Asp
15745		15750		15755	

Ser	Ile	Thr	Leu	Ser	Trp	Gly	Pro	Pro	Lys	Tyr	Asp	Gly	Gly	Ser
15760					15765					15770				
Ser	Ile	Asn	Asn	Tyr	Ile	Val	Glu	Lys	Arg	Asp	Thr	Ser	Thr	Thr
15775					15780					15785				
Thr	Trp	Gln	Ile	Val	Ser	Ala	Thr	Val	Ala	Arg	Thr	Thr	Ile	Lys
15790					15795					15800				
Ala	Cys	Arg	Leu	Lys	Thr	Gly	Cys	Glu	Tyr	Gln	Phe	Arg	Ile	Ala
15805					15810					15815				
Ala	Glu	Asn	Arg	Tyr	Gly	Lys	Ser	Thr	Tyr	Leu	Asn	Ser	Glu	Pro
15820					15825					15830				
Thr	Val	Ala	Gln	Tyr	Pro	Phe	Lys	Val	Pro	Gly	Pro	Pro	Gly	Thr
15835					15840					15845				
Pro	Val	Val	Thr	Leu	Ser	Ser	Arg	Asp	Ser	Met	Glu	Val	Gln	Trp
15850					15855					15860				
Asn	Glu	Pro	Ile	Ser	Asp	Gly	Gly	Ser	Arg	Val	Ile	Gly	Tyr	His
15865					15870					15875				
Leu	Glu	Arg	Lys	Glu	Arg	Asn	Ser	Ile	Leu	Trp	Val	Lys	Leu	Asn
15880					15885					15890				
Lys	Thr	Pro	Ile	Pro	Gln	Thr	Lys	Phe	Lys	Thr	Thr	Gly	Leu	Glu
15895					15900					15905				
Glu	Gly	Val	Glu	Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Ile	Val
15910					15915					15920				
Gly	Ile	Gly	Lys	Pro	Ser	Lys	Val	Ser	Glu	Cys	Tyr	Val	Ala	Arg
15925					15930					15935				
Asp	Pro	Cys	Asp	Pro	Pro	Gly	Arg	Pro	Glu	Ala	Ile	Ile	Val	Thr
15940					15945					15950				
Arg	Asn	Ser	Val	Thr	Leu	Gln	Trp	Lys	Lys	Pro	Thr	Tyr	Asp	Gly
15955					15960					15965				
Gly	Ser	Lys	Ile	Thr	Gly	Tyr	Ile	Val	Glu	Lys	Lys	Glu	Leu	Pro
15970					15975					15980				
Glu	Gly	Arg	Trp	Met	Lys	Ala	Ser	Phe	Thr	Asn	Ile	Ile	Asp	Thr
15985					15990					15995				
His	Phe	Glu	Val	Thr	Gly	Leu	Val	Glu	Asp	His	Arg	Tyr	Glu	Phe
16000					16005					16010				
Arg	Val	Ile	Ala	Arg	Asn	Ala	Ala	Gly	Val	Phe	Ser	Glu	Pro	Ser
16015					16020					16025				
Glu	Ser	Thr	Gly	Ala	Ile	Thr	Ala	Arg	Asp	Glu	Val	Asp	Pro	Pro
16030					16035					16040				
Arg	Ile	Ser	Met	Asp	Pro	Lys	Tyr	Lys	Asp	Thr	Ile	Val	Val	His
16045					16050					16055				
Ala	Gly	Glu	Ser	Phe	Lys	Val	Asp	Ala	Asp	Ile	Tyr	Gly	Lys	Pro
16060					16065					16070				
Ile	Pro	Thr	Ile	Gln	Trp	Ile	Lys	Gly	Asp	Gln	Glu	Leu	Ser	Asn
16075					16080					16085				
Thr	Ala	Arg	Leu	Glu	Ile	Lys	Ser	Thr	Asp	Phe	Ala	Thr	Ser	Leu
16090					16095					16100				
Ser	Val	Lys	Asp	Ala	Val	Arg	Val	Asp	Ser	Gly	Asn	Tyr	Ile	Leu
16105					16110					16115				
Lys	Ala	Lys	Asn	Val	Ala	Gly	Glu	Arg	Ser	Val	Thr	Val	Asn	Val
16120					16125					16130				
Lys	Val	Leu	Asp	Arg	Pro	Gly	Pro	Pro	Glu	Gly	Pro	Val	Val	Ile
16135					16140					16145				
Ser	Gly	Val	Thr	Ala	Glu	Lys	Cys	Thr	Leu	Ala	Trp	Lys	Pro	Pro
16150					16155					16160				
Leu	Gln	Asp	Gly	Gly	Ser	Asp	Ile	Ile	Asn	Tyr	Ile	Val	Glu	Arg
16165					16170					16175				
Arg	Glu	Thr	Ser	Arg	Leu	Val	Trp	Thr	Val	Val	Asp	Ala	Asn	Val
16180					16185					16190				
Gln	Thr	Leu	Ser	Cys	Lys	Val	Thr	Lys	Leu	Leu	Glu	Gly	Asn	Glu

16195	Tyr Thr Phe Arg Ile	16200	Met Ala Val Asn Lys	16205	Tyr Gly Val Gly Glu
16210	Pro Leu Glu Ser Glu	16215	Pro Val Val Ala Lys	16220	Asn Pro Phe Val Val
16225	Pro Asp Ala Pro Lys	16230	Ala Pro Glu Val Thr	16235	Thr Val Thr Lys Asp
16240	Ser Met Ile Val Val	16245	Trp Glu Arg Pro Ala	16250	Ser Asp Gly Gly Ser
16255	Glu Ile Leu Gly Tyr	16260	Val Leu Glu Lys Arg	16265	Asp Lys Glu Gly Ile
16270	Arg Trp Thr Arg Cys	16275	His Lys Arg Leu Ile	16280	Gly Glu Leu Arg Leu
16285	Arg Val Thr Gly Leu	16290	Ile Glu Asn His Asp	16295	Tyr Glu Phe Arg Val
16300	Ser Ala Glu Asn Ala	16305	Ala Gly Leu Ser Glu	16310	Pro Ser Pro Pro Ser
16315	Ala Tyr Gln Lys Ala	16320	Cys Asp Pro Ile Tyr	16325	Lys Pro Gly Pro Pro
16330	Asn Asn Pro Lys Val	16335	Ile Asp Ile Thr Arg	16340	Ser Ser Val Phe Leu
16345	Ser Trp Ser Lys Pro	16350	Ile Tyr Asp Gly Gly	16355	Cys Glu Ile Gln Gly
16360	Tyr Ile Val Glu Lys	16365	Cys Asp Val Asn Val	16370	Gly Glu Trp Thr Met
16375	Cys Thr Pro Pro Thr	16380	Gly Ile Asn Lys Thr	16385	Asn Ile Glu Val Glu
16390	Lys Leu Leu Glu Lys	16395	His Glu Tyr Asn Phe	16400	Arg Ile Cys Ala Ile
16405	Asn Lys Ala Gly Val	16410	Gly Glu His Ala Asp	16415	Val Pro Gly Pro Ile
16420	Ile Val Glu Glu Lys	16425	Leu Glu Ala Pro Asp	16430	Ile Asp Leu Asp Leu
16435	Glu Leu Arg Lys Ile	16440	Ile Asn Ile Arg Ala	16445	Gly Gly Ser Leu Arg
16450	Leu Phe Val Pro Ile	16455	Lys Gly Arg Pro Thr	16460	Pro Glu Val Lys Trp
16465	Gly Lys Val Asp Gly	16470	Glu Ile Arg Asp Ala	16475	Ala Ile Ile Asp Val
16480	Thr Ser Ser Phe Thr	16485	Ser Leu Val Leu Asp	16490	Asn Val Asn Arg Tyr
16495	Asp Ser Gly Lys Tyr	16500	Thr Leu Thr Leu Glu	16505	Asn Ser Ser Gly Thr
16510	Lys Ser Ala Phe Val	16515	Thr Val Arg Val Leu	16520	Asp Thr Pro Ser Pro
16525	Pro Val Asn Leu Lys	16530	Val Thr Glu Ile Thr	16535	Lys Asp Ser Val Ser
16540	Ile Thr Trp Glu Pro	16545	Pro Leu Leu Asp Gly	16550	Gly Ser Lys Ile Lys
16555	Asn Tyr Ile Val Glu	16560	Lys Arg Glu Ala Thr	16565	Arg Lys Ser Tyr Ala
16570	Ala Val Val Thr Asn	16575	Cys His Lys Asn Ser	16580	Trp Lys Ile Asp Gln
16585	Leu Gln Glu Gly Cys	16590	Ser Tyr Tyr Phe Arg	16595	Val Thr Ala Glu Asn
16600	Glu Tyr Gly Ile Gly	16605	Leu Pro Ala Gln Thr	16610	Ala Asp Pro Ile Lys
16615	Val Ala Glu Val Pro	16620	Gln Pro Pro Gly Lys	16625	Ile Thr Val Asp Asp
16630		16635		16640	

Val Thr Arg Asn Ser	Val Ser Leu Ser Trp	Thr Lys Pro Glu His
16645	16650	16655
Asp Gly Gly Ser Lys	Ile Ile Gln Tyr Ile	Val Glu Met Gln Ala
16660	16665	16670
Lys His Ser Glu Lys	Trp Ser Glu Cys Ala	Arg Val Lys Ser Leu
16675	16680	16685
Gln Ala Val Ile Thr	Asn Leu Thr Gln Gly	Glu Glu Tyr Leu Phe
16690	16695	16700
Arg Val Val Ala Val	Asn Glu Lys Gly Arg	Ser Asp Pro Arg Ser
16705	16710	16715
Leu Ala Val Pro Ile	Val Ala Lys Asp Leu	Val Ile Glu Pro Asp
16720	16725	16730
Val Lys Pro Ala Phe	Ser Ser Tyr Ser Val	Gln Val Gly Gln Asp
16735	16740	16745
Leu Lys Ile Glu Val	Pro Ile Ser Gly Arg	Pro Lys Pro Thr Ile
16750	16755	16760
Thr Trp Thr Lys Asp	Gly Leu Pro Leu Lys	Gln Thr Thr Arg Ile
16765	16770	16775
Asn Val Thr Asp Ser	Leu Asp Leu Thr Thr	Leu Ser Ile Lys Glu
16780	16785	16790
Thr His Lys Asp Asp	Gly Gly Gln Tyr Gly	Ile Thr Val Ala Asn
16795	16800	16805
Val Val Gly Gln Lys	Thr Ala Ser Ile Glu	Ile Val Thr Leu Asp
16810	16815	16820
Lys Pro Asp Pro Pro	Lys Gly Pro Val Lys	Phe Asp Asp Val Ser
16825	16830	16835
Ala Glu Ser Ile Thr	Leu Ser Trp Asn Pro	Pro Leu Tyr Thr Gly
16840	16845	16850
Gly Cys Gln Ile Thr	Asn Tyr Ile Val Gln	Lys Arg Asp Thr Thr
16855	16860	16865
Thr Thr Val Trp Asp	Val Val Ser Ala Thr	Val Ala Arg Thr Thr
16870	16875	16880
Leu Lys Val Thr Lys	Leu Lys Thr Gly Thr	Glu Tyr Gln Phe Arg
16885	16890	16895
Ile Phe Ala Glu Asn	Arg Tyr Gly Gln Ser	Phe Ala Leu Glu Ser
16900	16905	16910
Asp Pro Ile Val Ala	Gln Tyr Pro Tyr Lys	Glu Pro Gly Pro Pro
16915	16920	16925
Gly Thr Pro Phe Ala	Thr Ala Ile Ser Lys	Asp Ser Met Val Ile
16930	16935	16940
Gln Trp His Glu Pro	Val Asn Asn Gly Gly	Ser Pro Val Ile Gly
16945	16950	16955
Tyr His Leu Glu Arg	Lys Glu Arg Asn Ser	Ile Leu Trp Thr Lys
16960	16965	16970
Val Asn Lys Thr Ile	Ile His Asp Thr Gln	Phe Lys Ala Gln Asn
16975	16980	16985
Leu Glu Glu Gly Ile	Glu Tyr Glu Phe Arg	Val Tyr Ala Glu Asn
16990	16995	17000
Ile Val Gly Val Gly	Lys Ala Ser Lys Asn	Ser Glu Cys Tyr Val
17005	17010	17015
Ala Arg Asp Pro Cys	Asp Pro Pro Gly Thr	Pro Glu Pro Ile Met
17020	17025	17030
Val Lys Arg Asn Glu	Ile Thr Leu Gln Trp	Thr Lys Pro Val Tyr
17035	17040	17045
Asp Gly Gly Ser Met	Ile Thr Gly Tyr Ile	Val Glu Lys Arg Asp
17050	17055	17060
Leu Pro Asp Gly Arg	Trp Met Lys Ala Ser	Phe Thr Asn Val Ile
17065	17070	17075
Glu Thr Gln Phe Thr	Val Ser Gly Leu Thr	Glu Asp Gln Arg Tyr

17080	17085	17090
Glu Phe Arg Val Ile	Ala Lys Asn Ala Ala	Gly Ala Ile Ser Lys
17095	17100	17105
Pro Ser Asp Ser Thr	Gly Pro Ile Thr Ala	Lys Asp Glu Val Glu
17110	17115	17120
Leu Pro Arg Ile Ser	Met Asp Pro Lys Phe	Arg Asp Thr Ile Val
17125	17130	17135
Val Asn Ala Gly Glu	Thr Phe Arg Leu Glu	Ala Asp Val His Gly
17140	17145	17150
Lys Pro Leu Pro Thr	Ile Glu Trp Leu Arg	Gly Asp Lys Glu Ile
17155	17160	17165
Glu Glu Ser Ala Arg	Cys Glu Ile Lys Asn	Thr Asp Phe Lys Ala
17170	17175	17180
Leu Leu Ile Val Lys	Asp Ala Ile Arg Ile	Asp Gly Gly Gln Tyr
17185	17190	17195
Ile Leu Arg Ala Ser	Asn Val Ala Gly Ser	Lys Ser Phe Pro Val
17200	17205	17210
Asn Val Lys Val Leu	Asp Arg Pro Gly Pro	Pro Glu Gly Pro Val
17215	17220	17225
Gln Val Thr Gly Val	Thr Ser Glu Lys Cys	Ser Leu Thr Trp Ser
17230	17235	17240
Pro Pro Leu Gln Asp	Gly Gly Ser Asp Ile	Ser His Tyr Val Val
17245	17250	17255
Glu Lys Arg Glu Thr	Ser Arg Leu Ala Trp	Thr Val Val Ala Ser
17260	17265	17270
Glu Val Val Thr Asn	Ser Leu Lys Val Thr	Lys Leu Leu Glu Gly
17275	17280	17285
Asn Glu Tyr Val Phe	Arg Ile Met Ala Val	Asn Lys Tyr Gly Val
17290	17295	17300
Gly Glu Pro Leu Glu	Ser Ala Pro Val Leu	Met Lys Asn Pro Phe
17305	17310	17315
Val Leu Pro Gly Pro	Pro Lys Ser Leu Glu	Val Thr Asn Ile Ala
17320	17325	17330
Lys Asp Ser Met Thr	Val Cys Trp Asn Arg	Pro Asp Ser Asp Gly
17335	17340	17345
Gly Ser Glu Ile Ile	Gly Tyr Ile Val Glu	Lys Arg Asp Arg Ser
17350	17355	17360
Gly Ile Arg Trp Ile	Lys Cys Asn Lys Arg	Arg Ile Thr Asp Leu
17365	17370	17375
Arg Leu Arg Val Thr	Gly Leu Thr Glu Asp	His Glu Tyr Glu Phe
17380	17385	17390
Arg Val Ser Ala Glu	Asn Ala Ala Gly Val	Gly Glu Pro Ser Pro
17395	17400	17405
Ala Thr Val Tyr Tyr	Lys Ala Cys Asp Pro	Val Phe Lys Pro Gly
17410	17415	17420
Pro Pro Thr Asn Ala	His Ile Val Asp Thr	Thr Lys Asn Ser Ile
17425	17430	17435
Thr Leu Ala Trp Gly	Lys Pro Ile Tyr Asp	Gly Gly Ser Glu Ile
17440	17445	17450
Leu Gly Tyr Val Val	Glu Ile Cys Lys Ala	Asp Glu Glu Glu Trp
17455	17460	17465
Gln Ile Val Thr Pro	Gln Thr Gly Leu Arg	Val Thr Arg Phe Glu
17470	17475	17480
Ile Ser Lys Leu Thr	Glu His Gln Glu Tyr	Lys Ile Arg Val Cys
17485	17490	17495
Ala Leu Asn Lys Val	Gly Leu Gly Glu Ala	Thr Ser Val Pro Gly
17500	17505	17510
Thr Val Lys Pro Glu	Asp Lys Leu Glu Ala	Pro Glu Leu Asp Leu
17515	17520	17525

Asp Ser Glu Leu Arg	Lys Gly Ile Val Val	Arg Ala Gly Gly Ser
17530	17535	17540
Ala Arg Ile His Ile	Pro Phe Lys Gly Arg	Pro Met Pro Glu Ile
17545	17550	17555
Thr Trp Ser Arg Glu	Glu Gly Glu Phe Thr	Asp Lys Val Gln Ile
17560	17565	17570
Glu Lys Gly Val Asn	Tyr Thr Gln Leu Ser	Ile Asp Asn Cys Asp
17575	17580	17585
Arg Asn Asp Ala Gly	Lys Tyr Ile Leu Lys	Leu Glu Asn Ser Ser
17590	17595	17600
Gly Ser Lys Ser Ala	Phe Val Thr Val Lys	Val Leu Asp Thr Pro
17605	17610	17615
Gly Pro Pro Gln Asn	Leu Ala Val Lys Glu	Val Arg Lys Asp Ser
17620	17625	17630
Ala Phe Leu Val Trp	Glu Pro Pro Ile Ile	Asp Gly Gly Ala Lys
17635	17640	17645
Val Lys Asn Tyr Val	Ile Asp Lys Arg Glu	Ser Thr Arg Lys Ala
17650	17655	17660
Tyr Ala Asn Val Ser	Ser Lys Cys Ser Lys	Thr Ser Phe Lys Val
17665	17670	17675
Glu Asn Leu Thr Glu	Gly Ala Ile Tyr Tyr	Phe Arg Val Met Ala
17680	17685	17690
Glu Asn Glu Phe Gly	Val Gly Val Pro Val	Glu Thr Val Asp Ala
17695	17700	17705
Val Lys Ala Ala Glu	Pro Pro Ser Pro Pro	Gly Lys Val Thr Leu
17710	17715	17720
Thr Asp Val Ser Gln	Thr Ser Ala Ser Leu	Met Trp Glu Lys Pro
17725	17730	17735
Glu His Asp Gly Gly	Ser Arg Val Leu Gly	Tyr Val Val Glu Met
17740	17745	17750
Gln Pro Lys Gly Thr	Glu Lys Trp Ser Ile	Val Ala Glu Ser Lys
17755	17760	17765
Val Cys Asn Ala Val	Val Thr Gly Leu Ser	Ser Gly Gln Glu Tyr
17770	17775	17780
Gln Phe Arg Val Lys	Ala Tyr Asn Glu Lys	Gly Lys Ser Asp Pro
17785	17790	17795
Arg Val Leu Gly Val	Pro Val Ile Ala Lys	Asp Leu Thr Ile Gln
17800	17805	17810
Pro Ser Leu Lys Leu	Pro Phe Asn Thr Tyr	Ser Ile Gln Ala Gly
17815	17820	17825
Glu Asp Leu Lys Ile	Glu Ile Pro Val Ile	Gly Arg Pro Arg Pro
17830	17835	17840
Asn Ile Ser Trp Val	Lys Asp Gly Glu Pro	Leu Lys Gln Thr Thr
17845	17850	17855
Arg Val Asn Val Glu	Glu Thr Ala Thr Ser	Thr Val Leu His Ile
17860	17865	17870
Lys Glu Gly Asn Lys	Asp Asp Phe Gly Lys	Tyr Thr Val Thr Ala
17875	17880	17885
Thr Asn Ser Ala Gly	Thr Ala Thr Glu Asn	Leu Ser Val Ile Val
17890	17895	17900
Leu Glu Lys Pro Gly	Pro Pro Val Gly Pro	Val Arg Phe Asp Glu
17905	17910	17915
Val Ser Ala Asp Phe	Val Val Ile Ser Trp	Glu Pro Pro Ala Tyr
17920	17925	17930
Thr Gly Gly Cys Gln	Ile Ser Asn Tyr Ile	Val Glu Lys Arg Asp
17935	17940	17945
Thr Thr Thr Thr Thr	Trp His Met Val Ser	Ala Thr Val Ala Arg
17950	17955	17960
Thr Thr Ile Lys Ile	Thr Lys Leu Lys Thr	Gly Thr Glu Tyr Gln

17965	Phe Arg Ile Phe Ala	17970	Glu Asn Arg Tyr Gly	17975	Lys Ser Ala Pro Leu
17980	Asp Ser Lys Ala Val	17985	Ile Val Gln Tyr Pro	17990	Phe Lys Glu Pro Gly
17995	Pro Pro Gly Thr Pro	18000	Phe Val Thr Ser Ile	18005	Ser Lys Asp Gln Met
18010	Leu Val Gln Trp His	18015	Glu Pro Val Asn Asp	18020	Gly Gly Thr Lys Ile
18025	Ile Gly Tyr His Leu	18030	Glu Gln Lys Glu Lys	18035	Asn Ser Ile Leu Trp
18040	Val Lys Leu Asn Lys	18045	Thr Pro Ile Gln Asp	18050	Thr Lys Phe Lys Thr
18055	Thr Gly Leu Asp Glu	18060	Gly Leu Glu Tyr Glu	18065	Phe Lys Val Ser Ala
18070	Glu Asn Ile Val Gly	18075	Ile Gly Lys Pro Ser	18080	Lys Val Ser Glu Cys
18085	Phe Val Ala Arg Asp	18090	Pro Cys Asp Pro Pro	18095	Gly Arg Pro Glu Ala
18100	Ile Val Ile Thr Arg	18105	Asn Asn Val Thr Leu	18110	Lys Trp Lys Lys Pro
18115	Ala Tyr Asp Gly Gly	18120	Ser Lys Ile Thr Gly	18125	Tyr Ile Val Glu Lys
18130	Lys Asp Leu Pro Asp	18135	Gly Arg Trp Met Lys	18140	Ala Ser Phe Thr Asn
18145	Val Leu Glu Thr Glu	18150	Phe Thr Val Ser Gly	18155	Leu Val Glu Asp Gln
18160	Arg Tyr Glu Phe Arg	18165	Val Ile Ala Arg Asn	18170	Ala Ala Gly Asn Phe
18175	Ser Glu Pro Ser Asp	18180	Ser Ser Gly Ala Ile	18185	Thr Ala Arg Asp Glu
18190	Ile Asp Ala Pro Asn	18195	Ala Ser Leu Asp Pro	18200	Lys Tyr Lys Asp Val
18205	Ile Val Val His Ala	18210	Gly Glu Thr Phe Val	18215	Leu Glu Ala Asp Ile
18220	Arg Gly Lys Pro Ile	18225	Pro Asp Val Val Trp	18230	Ser Lys Asp Gly Lys
18235	Glu Leu Glu Glu Thr	18240	Ala Ala Arg Met Glu	18245	Ile Lys Ser Thr Ile
18250	Gln Lys Thr Thr Leu	18255	Val Val Lys Asp Cys	18260	Ile Arg Thr Asp Gly
18265	Gly Gln Tyr Ile Leu	18270	Lys Leu Ser Asn Val	18275	Gly Gly Thr Lys Ser
18280	Ile Pro Ile Thr Val	18285	Lys Val Leu Asp Arg	18290	Pro Gly Ser Pro Glu
18295	Gly Pro Leu Lys Val	18300	Thr Gly Val Thr Ala	18305	Glu Lys Cys Tyr Leu
18310	Ala Trp Asn Pro Pro	18315	Leu Gln Asp Gly Gly	18320	Ala Asn Ile Ser His
18325	Tyr Ile Ile Glu Lys	18330	Arg Glu Thr Ser Arg	18335	Leu Ser Trp Thr Gln
18340	Val Ser Thr Glu Val	18345	Gln Ala Leu Asn Tyr	18350	Lys Val Thr Lys Leu
18355	Leu Pro Gly Asn Glu	18360	Tyr Ile Phe Arg Val	18365	Met Ala Val Asn Lys
18370	Tyr Gly Ile Gly Glu	18375	Pro Leu Glu Ser Gly	18380	Pro Val Thr Ala Cys
18385	Asn Pro Tyr Lys Pro	18390	Pro Gly Pro Pro Ser	18395	Thr Pro Glu Val Ser
18400		18405		18410	

Ala Ile Thr Lys Asp	Ser Met Val Val Thr	Trp Ala Arg Pro Val
18415	18420	18425
Asp Asp Gly Gly Thr	Glu Ile Glu Gly Tyr	Ile Leu Glu Lys Arg
18430	18435	18440
Asp Lys Glu Gly Val	Arg Trp Thr Lys Cys	Asn Lys Lys Thr Leu
18445	18450	18455
Thr Asp Leu Arg Leu	Arg Val Thr Gly Leu	Thr Glu Gly His Ser
18460	18465	18470
Tyr Glu Phe Arg Val	Ala Ala Glu Asn Ala	Ala Gly Val Gly Glu
18475	18480	18485
Pro Ser Glu Pro Ser	Val Phe Tyr Arg Ala	Cys Asp Ala Leu Tyr
18490	18495	18500
Pro Pro Gly Pro Pro	Ser Asn Pro Lys Val	Thr Asp Thr Ser Arg
18505	18510	18515
Ser Ser Val Ser Leu	Ala Trp Ser Lys Pro	Ile Tyr Asp Gly Gly
18520	18525	18530
Ala Pro Val Lys Gly	Tyr Val Val Glu Val	Lys Glu Ala Ala Ala
18535	18540	18545
Asp Glu Trp Thr Thr	Cys Thr Pro Pro Thr	Gly Leu Gln Gly Lys
18550	18555	18560
Gln Phe Thr Val Thr	Lys Leu Lys Glu Asn	Thr Glu Tyr Asn Phe
18565	18570	18575
Arg Ile Cys Ala Ile	Asn Ser Glu Gly Val	Gly Glu Pro Ala Thr
18580	18585	18590
Leu Pro Gly Ser Val	Val Ala Gln Glu Arg	Ile Glu Pro Pro Glu
18595	18600	18605
Ile Glu Leu Asp Ala	Asp Leu Arg Lys Val	Val Val Leu Arg Ala
18610	18615	18620
Ser Ala Thr Leu Arg	Leu Phe Val Thr Ile	Lys Gly Arg Pro Glu
18625	18630	18635
Pro Glu Val Lys Trp	Glu Lys Ala Glu Gly	Ile Leu Thr Asp Arg
18640	18645	18650
Ala Gln Ile Glu Val	Thr Ser Ser Phe Thr	Met Leu Val Ile Asp
18655	18660	18665
Asn Val Thr Arg Phe	Asp Ser Gly Arg Tyr	Asn Leu Thr Leu Glu
18670	18675	18680
Asn Asn Ser Gly Ser	Lys Thr Ala Phe Val	Asn Val Arg Val Leu
18685	18690	18695
Asp Ser Pro Ser Ala	Pro Val Asn Leu Thr	Ile Arg Glu Val Lys
18700	18705	18710
Lys Asp Ser Val Thr	Leu Ser Trp Glu Pro	Pro Leu Ile Asp Gly
18715	18720	18725
Gly Ala Lys Ile Thr	Asn Tyr Ile Val Glu	Lys Arg Glu Thr Thr
18730	18735	18740
Arg Lys Ala Tyr Ala	Thr Ile Thr Asn Asn	Cys Thr Lys Thr Thr
18745	18750	18755
Phe Arg Ile Glu Asn	Leu Gln Glu Gly Cys	Ser Tyr Tyr Phe Arg
18760	18765	18770
Val Leu Ala Ser Asn	Glu Tyr Gly Ile Gly	Leu Pro Ala Glu Thr
18775	18780	18785
Thr Glu Pro Val Lys	Val Ser Glu Pro Pro	Leu Pro Pro Gly Arg
18790	18795	18800
Val Thr Leu Val Asp	Val Thr Arg Asn Thr	Ala Thr Ile Lys Trp
18805	18810	18815
Glu Lys Pro Glu Ser	Asp Gly Gly Ser Lys	Ile Thr Gly Tyr Val
18820	18825	18830
Val Glu Met Gln Thr	Lys Gly Ser Glu Lys	Trp Ser Thr Cys Thr
18835	18840	18845
Gln Val Lys Thr Leu	Glu Ala Thr Ile Ser	Gly Leu Thr Ala Gly

18850	Glu Glu Tyr Val Phe	18855	Arg Val Ala Ala Val	18860	Asn Glu Lys Gly Arg
18865	Ser Asp Pro Arg Gln	18870	Leu Gly Val Pro Val	18875	Ile Ala Arg Asp Ile
18880	Glu Ile Lys Pro Ser	18885	Val Glu Leu Pro Phe	18890	His Thr Phe Asn Val
18895	Lys Ala Arg Glu Gln	18900	Leu Lys Ile Asp Val	18905	Pro Phe Lys Gly Arg
18910	Pro Gln Ala Thr Val	18915	Asn Trp Arg Lys Asp	18920	Gly Gln Thr Leu Lys
18925	Glu Thr Thr Arg Val	18930	Asn Val Ser Ser Ser	18935	Lys Thr Val Thr Ser
18940	Leu Ser Ile Lys Glu	18945	Ala Ser Lys Glu Asp	18950	Val Gly Thr Tyr Glu
18955	Leu Cys Val Ser Asn	18960	Ser Ala Gly Ser Ile	18965	Thr Val Pro Ile Thr
18970	Ile Ile Val Leu Asp	18975	Arg Pro Gly Pro Pro	18980	Gly Pro Ile Arg Ile
18985	Asp Glu Val Ser Cys	18990	Asp Ser Ile Thr Ile	18995	Ser Trp Asn Pro Pro
19000	Glu Tyr Asp Gly Gly	19005	Cys Gln Ile Ser Asn	19010	Tyr Ile Val Glu Lys
19015	Lys Glu Thr Thr Ser	19020	Thr Thr Trp His Ile	19025	Val Ser Gln Ala Val
19030	Ala Arg Thr Ser Ile	19035	Lys Ile Val Arg Leu	19040	Thr Thr Gly Ser Glu
19045	Tyr Gln Phe Arg Val	19050	Cys Ala Glu Asn Arg	19055	Tyr Gly Lys Ser Ser
19060	Tyr Ser Glu Ser Ser	19065	Ala Val Val Ala Glu	19070	Tyr Pro Phe Ser Pro
19075	Pro Gly Pro Pro Gly	19080	Thr Pro Lys Val Val	19085	His Ala Thr Lys Ser
19090	Thr Met Leu Val Thr	19095	Trp Gln Val Pro Val	19100	Asn Asp Gly Gly Ser
19105	Arg Val Ile Gly Tyr	19110	His Leu Glu Tyr Lys	19115	Glu Arg Ser Ser Ile
19120	Leu Trp Ser Lys Ala	19125	Asn Lys Ile Leu Ile	19130	Ala Asp Thr Gln Val
19135	Lys Val Ser Gly Leu	19140	Asp Glu Gly Leu Met	19145	Tyr Glu Tyr Arg Val
19150	Tyr Ala Glu Asn Ile	19155	Ala Gly Ile Gly Lys	19160	Cys Ser Lys Ser Cys
19165	Glu Pro Val Pro Ala	19170	Arg Asp Pro Cys Asp	19175	Pro Pro Gly Gln Pro
19180	Glu Val Thr Asn Ile	19185	Thr Arg Lys Ser Val	19190	Ser Leu Lys Trp Ser
19195	Lys Pro His Tyr Asp	19200	Gly Gly Ala Lys Ile	19205	Thr Gly Tyr Ile Val
19210	Glu Arg Arg Glu Leu	19215	Pro Asp Gly Arg Trp	19220	Leu Lys Cys Asn Tyr
19225	Thr Asn Ile Gln Glu	19230	Thr Tyr Phe Glu Val	19235	Thr Glu Leu Thr Glu
19240	Asp Gln Arg Tyr Glu	19245	Phe Arg Val Phe Ala	19250	Arg Asn Ala Ala Asp
19255	Ser Val Ser Glu Pro	19260	Ser Glu Ser Thr Gly	19265	Pro Ile Ile Val Lys
19270	Asp Asp Val Glu Pro	19275	Pro Arg Val Met Met	19280	Asp Val Lys Phe Arg
19285		19290		19295	

Asp Val Ile Val Val	Lys Ala Gly Glu Val	Leu Lys Ile Asn Ala
19300	19305	19310
Asp Ile Ala Gly Arg	Pro Leu Pro Val Ile	Ser Trp Ala Lys Asp
19315	19320	19325
Gly Ile Glu Ile Glu	Glu Arg Ala Arg Thr	Glu Ile Ile Ser Thr
19330	19335	19340
Asp Asn His Thr Leu	Leu Thr Val Lys Asp	Cys Ile Arg Arg Asp
19345	19350	19355
Thr Gly Gln Tyr Val	Leu Thr Leu Lys Asn	Val Ala Gly Thr Arg
19360	19365	19370
Ser Val Ala Val Asn	Cys Lys Val Leu Asp	Lys Pro Gly Pro Pro
19375	19380	19385
Ala Gly Pro Leu Glu	Ile Asn Gly Leu Thr	Ala Glu Lys Cys Ser
19390	19395	19400
Leu Ser Trp Gly Arg	Pro Gln Glu Asp Gly	Gly Ala Asp Ile Asp
19405	19410	19415
Tyr Tyr His Arg Lys	Lys Arg Glu Thr Ser	His Leu Ala Trp Thr
19420	19425	19430
Ile Cys Glu Gly Glu	Leu Gln Met Thr Ser	Cys Lys Val Thr Lys
19435	19440	19445
Leu Leu Lys Gly Asn	Glu Tyr Ile Phe Arg	Val Thr Gly Val Asn
19450	19455	19460
Lys Tyr Gly Val Gly	Glu Pro Leu Glu Ser	Val Ala Ile Lys Ala
19465	19470	19475
Leu Asp Pro Phe Thr	Val Pro Ser Pro Pro	Thr Ser Leu Glu Ile
19480	19485	19490
Thr Ser Val Thr Lys	Glu Ser Met Thr Leu	Cys Trp Ser Arg Pro
19495	19500	19505
Glu Ser Asp Gly Gly	Ser Glu Ile Ser Gly	Tyr Ile Ile Glu Arg
19510	19515	19520
Arg Glu Lys Asn Ser	Leu Arg Trp Val Arg	Val Asn Lys Lys Pro
19525	19530	19535
Val Tyr Asp Leu Arg	Val Lys Ser Thr Gly	Leu Arg Glu Gly Cys
19540	19545	19550
Glu Tyr Glu Tyr Arg	Val Tyr Ala Glu Asn	Ala Ala Gly Leu Ser
19555	19560	19565
Leu Pro Ser Glu Thr	Ser Pro Leu Ile Arg	Ala Glu Asp Pro Val
19570	19575	19580
Phe Leu Pro Ser Pro	Pro Ser Lys Pro Lys	Ile Val Asp Ser Gly
19585	19590	19595
Lys Thr Thr Ile Thr	Ile Ala Trp Val Lys	Pro Leu Phe Asp Gly
19600	19605	19610
Gly Ala Pro Ile Thr	Gly Tyr Thr Val Glu	Tyr Lys Lys Ser Asp
19615	19620	19625
Asp Thr Asp Trp Lys	Thr Ser Ile Gln Ser	Leu Arg Gly Thr Glu
19630	19635	19640
Tyr Thr Ile Ser Gly	Leu Thr Thr Gly Ala	Glu Tyr Val Phe Arg
19645	19650	19655
Val Lys Ser Val Asn	Lys Val Gly Ala Ser	Asp Pro Ser Asp Ser
19660	19665	19670
Ser Asp Pro Gln Ile	Ala Lys Glu Arg Glu	Glu Glu Pro Leu Phe
19675	19680	19685
Asp Ile Asp Ser Glu	Met Arg Lys Thr Leu	Ile Val Lys Ala Gly
19690	19695	19700
Ala Ser Phe Thr Met	Thr Val Pro Phe Arg	Gly Arg Pro Val Pro
19705	19710	19715
Asn Val Leu Trp Ser	Lys Pro Asp Thr Asp	Leu Arg Thr Arg Ala
19720	19725	19730
Tyr Val Asp Thr Thr	Asp Ser Arg Thr Ser	Leu Thr Ile Glu Asn

19735	Ala Asn Arg Asn Asp	19740	Ser Gly Lys Tyr Thr	19745	Leu Thr Ile Gln Asn
19750	Val Leu Ser Ala Ala	19755	Ser Leu Thr Leu Val	19760	Val Lys Val Leu Asp
19765	Thr Pro Gly Pro Pro	19770	Thr Asn Ile Thr Val	19775	Gln Asp Val Thr Lys
19780	Glu Ser Ala Val Leu	19785	Ser Trp Asp Val Pro	19790	Glu Asn Asp Gly Gly
19795	Ala Pro Val Lys Asn	19800	Tyr His Ile Glu Lys	19805	Arg Glu Ala Ser Lys
19810	Lys Ala Trp Val Ser	19815	Val Thr Asn Asn Cys	19820	Asn Arg Leu Ser Tyr
19825	Lys Val Thr Asn Leu	19830	Gln Glu Gly Ala Ile	19835	Tyr Tyr Phe Arg Val
19840	Ser Gly Glu Asn Glu	19845	Phe Gly Val Gly Ile	19850	Pro Ala Glu Thr Lys
19855	Glu Gly Val Lys Ile	19860	Thr Glu Lys Pro Ser	19865	Pro Pro Glu Lys Leu
19870	Gly Val Thr Ser Ile	19875	Ser Lys Asp Ser Val	19880	Ser Leu Thr Trp Leu
19885	Lys Pro Glu His Asp	19890	Gly Gly Ser Arg Ile	19895	Val His Tyr Val Val
19900	Glu Ala Leu Glu Lys	19905	Gly Gln Lys Asn Trp	19910	Val Lys Cys Ala Val
19915	Ala Lys Ser Thr His	19920	His Val Val Ser Gly	19925	Leu Arg Glu Asn Ser
19930	Glu Tyr Phe Phe Arg	19935	Val Phe Ala Glu Asn	19940	Gln Ala Gly Leu Ser
19945	Asp Pro Arg Glu Leu	19950	Leu Leu Pro Val Leu	19955	Ile Lys Glu Gln Leu
19960	Glu Pro Pro Glu Ile	19965	Asp Met Lys Asn Phe	19970	Pro Ser His Thr Val
19975	Tyr Val Arg Ala Gly	19980	Ser Asn Leu Lys Val	19985	Asp Ile Pro Ile Ser
19990	Gly Lys Pro Leu Pro	19995	Lys Val Thr Leu Ser	20000	Arg Asp Gly Val Pro
20005	Leu Lys Ala Thr Met	20010	Arg Phe Asn Thr Glu	20015	Ile Thr Ala Glu Asn
20020	Leu Thr Ile Asn Leu	20025	Lys Glu Ser Val Thr	20030	Ala Asp Ala Gly Arg
20035	Tyr Glu Ile Thr Ala	20040	Ala Asn Ser Ser Gly	20045	Thr Thr Lys Ala Phe
20050	Ile Asn Ile Val Val	20055	Leu Asp Arg Pro Gly	20060	Pro Pro Thr Gly Pro
20065	Val Val Ile Ser Asp	20070	Ile Thr Glu Glu Ser	20075	Val Thr Leu Lys Trp
20080	Glu Pro Pro Lys Tyr	20085	Asp Gly Gly Ser Gln	20090	Val Thr Asn Tyr Ile
20095	Leu Leu Lys Arg Glu	20100	Thr Ser Thr Ala Val	20105	Trp Thr Glu Val Ser
20110	Ala Thr Val Ala Arg	20115	Thr Met Met Lys Val	20120	Met Lys Leu Thr Thr
20125	Gly Glu Glu Tyr Gln	20130	Phe Arg Ile Lys Ala	20135	Glu Asn Arg Phe Gly
20140	Ile Ser Asp His Ile	20145	Asp Ser Ala Cys Val	20150	Thr Val Lys Leu Pro
20155	Tyr Thr Thr Pro Gly	20160	Pro Pro Ser Thr Pro	20165	Trp Val Thr Asn Val
20170		20175		20180	

Thr	Arg	Glu	Ser	Ile	Thr	Val	Gly	Trp	His	Glu	Pro	Val	Ser	Asn
20185					20190					20195				
Gly	Gly	Ser	Ala	Val	Val	Gly	Tyr	His	Leu	Glu	Met	Lys	Asp	Arg
20200					20205					20210				
Asn	Ser	Ile	Leu	Trp	Gln	Lys	Ala	Asn	Lys	Leu	Val	Ile	Arg	Thr
20215					20220					20225				
Thr	His	Phe	Lys	Val	Thr	Thr	Ile	Ser	Ala	Gly	Leu	Ile	Tyr	Glu
20230					20235					20240				
Phe	Arg	Val	Tyr	Ala	Glu	Asn	Ala	Ala	Gly	Val	Gly	Lys	Pro	Ser
20245					20250					20255				
His	Pro	Ser	Glu	Pro	Val	Leu	Ala	Ile	Asp	Ala	Cys	Glu	Pro	Pro
20260					20265					20270				
Arg	Asn	Val	Arg	Ile	Thr	Asp	Ile	Ser	Lys	Asn	Ser	Val	Ser	Leu
20275					20280					20285				
Ser	Trp	Gln	Gln	Pro	Ala	Phe	Asp	Gly	Gly	Ser	Lys	Ile	Thr	Gly
20290					20295					20300				
Tyr	Ile	Val	Glu	Arg	Arg	Asp	Leu	Pro	Asp	Gly	Arg	Trp	Thr	Lys
20305					20310					20315				
Ala	Ser	Phe	Thr	Asn	Val	Thr	Glu	Thr	Gln	Phe	Thr	Ile	Ser	Gly
20320					20325					20330				
Leu	Thr	Gln	Asn	Ser	Gln	Tyr	Glu	Phe	Arg	Val	Phe	Ala	Arg	Asn
20335					20340					20345				
Ala	Val	Gly	Ser	Ile	Ser	Asn	Pro	Ser	Glu	Val	Val	Gly	Pro	Ile
20350					20355					20360				
Thr	Cys	Ile	Asp	Ser	Tyr	Gly	Gly	Pro	Val	Ile	Asp	Leu	Pro	Leu
20365					20370					20375				
Glu	Tyr	Thr	Glu	Val	Val	Lys	Tyr	Arg	Ala	Gly	Thr	Ser	Val	Lys
20380					20385					20390				
Leu	Arg	Ala	Gly	Ile	Ser	Gly	Lys	Pro	Ala	Pro	Thr	Ile	Glu	Trp
20395					20400					20405				
Tyr	Lys	Asp	Asp	Lys	Glu	Leu	Gln	Thr	Asn	Ala	Leu	Val	Cys	Val
20410					20415					20420				
Glu	Asn	Thr	Thr	Asp	Leu	Ala	Ser	Ile	Leu	Ile	Lys	Asp	Ala	Asp
20425					20430					20435				
Arg	Leu	Asn	Ser	Gly	Cys	Tyr	Glu	Leu	Lys	Leu	Arg	Asn	Ala	Met
20440					20445					20450				
Ala	Ser	Ala	Ser	Ala	Thr	Ile	Arg	Val	Gln	Ile	Leu	Asp	Lys	Pro
20455					20460					20465				
Gly	Pro	Pro	Gly	Gly	Pro	Ile	Glu	Phe	Lys	Thr	Val	Thr	Ala	Glu
20470					20475					20480				
Lys	Ile	Thr	Leu	Leu	Trp	Arg	Pro	Pro	Ala	Asp	Asp	Gly	Gly	Ala
20485					20490					20495				
Lys	Ile	Thr	His	Tyr	Ile	Val	Glu	Lys	Arg	Glu	Thr	Ser	Arg	Val
20500					20505					20510				
Val	Trp	Ser	Met	Val	Ser	Glu	His	Leu	Glu	Glu	Cys	Ile	Ile	Thr
20515					20520					20525				
Thr	Thr	Lys	Ile	Ile	Lys	Gly	Asn	Glu	Tyr	Ile	Phe	Arg	Val	Arg
20530					20535					20540				
Ala	Val	Asn	Lys	Tyr	Gly	Ile	Gly	Glu	Pro	Leu	Glu	Ser	Asp	Ser
20545					20550					20555				
Val	Val	Ala	Lys	Asn	Ala	Phe	Val	Thr	Pro	Gly	Pro	Pro	Gly	Ile
20560					20565					20570				
Pro	Glu	Val	Thr	Lys	Ile	Thr	Lys	Asn	Ser	Met	Thr	Val	Val	Trp
20575					20580					20585				
Ser	Arg	Pro	Ile	Ala	Asp	Gly	Gly	Ser	Asp	Ile	Ser	Gly	Tyr	Phe
20590					20595					20600				
Leu	Glu	Lys	Arg	Asp	Lys	Lys	Ser	Leu	Gly	Trp	Phe	Lys	Val	Leu
20605					20610					20615				
Lys	Glu	Thr	Ile	Arg	Asp	Thr	Arg	Gln	Lys	Val	Thr	Gly	Leu	Thr

20620	20625	20630
Glu Asn Ser Asp Tyr	Gln Tyr Arg Val Cys	Ala Val Asn Ala Ala
20635	20640	20645
Gly Gln Gly Pro Phe	Ser Glu Pro Ser Glu	Phe Tyr Lys Ala Ala
20650	20655	20660
Asp Pro Ile Asp Pro	Pro Gly Pro Pro Ala	Lys Ile Arg Ile Ala
20665	20670	20675
Asp Ser Thr Lys Ser	Ser Ile Thr Leu Gly	Trp Ser Lys Pro Val
20680	20685	20690
Tyr Asp Gly Gly Ser	Ala Val Thr Gly Tyr	Val Val Glu Ile Arg
20695	20700	20705
Gln Gly Glu Glu Glu	Glu Trp Thr Thr Val	Ser Thr Lys Gly Glu
20710	20715	20720
Val Arg Thr Thr Glu	Tyr Val Val Ser Asn	Leu Lys Pro Gly Val
20725	20730	20735
Asn Tyr Tyr Phe Arg	Val Ser Ala Val Asn	Cys Ala Gly Gln Gly
20740	20745	20750
Glu Pro Ile Glu Met	Asn Glu Pro Val Gln	Ala Lys Asp Ile Leu
20755	20760	20765
Glu Ala Pro Glu Ile	Asp Leu Asp Val Ala	Leu Arg Thr Ser Val
20770	20775	20780
Ile Ala Lys Ala Gly	Glu Asp Val Gln Val	Leu Ile Pro Phe Lys
20785	20790	20795
Gly Arg Pro Pro Pro	Thr Val Thr Trp Arg	Lys Asp Glu Lys Asn
20800	20805	20810
Leu Gly Ser Asp Ala	Arg Tyr Ser Ile Glu	Asn Thr Asp Ser Ser
20815	20820	20825
Ser Leu Leu Thr Ile	Pro Gln Val Thr Arg	Asn Asp Thr Gly Lys
20830	20835	20840
Tyr Ile Leu Thr Ile	Glu Asn Gly Val Gly	Glu Pro Lys Ser Ser
20845	20850	20855
Thr Val Ser Val Lys	Val Leu Asp Thr Pro	Ala Ala Cys Gln Lys
20860	20865	20870
Leu Gln Val Lys His	Val Ser Arg Gly Thr	Val Thr Leu Leu Trp
20875	20880	20885
Asp Pro Pro Leu Ile	Asp Gly Gly Ser Pro	Ile Ile Asn Tyr Val
20890	20895	20900
Ile Glu Lys Arg Asp	Ala Thr Lys Arg Thr	Trp Ser Val Val Ser
20905	20910	20915
His Lys Cys Ser Ser	Thr Ser Phe Lys Leu	Ile Asp Leu Ser Glu
20920	20925	20930
Lys Thr Pro Phe Phe	Phe Arg Val Leu Ala	Glu Asn Glu Ile Gly
20935	20940	20945
Ile Gly Glu Pro Cys	Glu Thr Thr Glu Pro	Val Lys Ala Ala Glu
20950	20955	20960
Val Pro Ala Pro Ile	Arg Asp Leu Ser Met	Lys Asp Ser Thr Lys
20965	20970	20975
Thr Ser Val Ile Leu	Ser Trp Thr Lys Pro	Asp Phe Asp Gly Gly
20980	20985	20990
Ser Val Ile Thr Glu	Tyr Val Val Glu Arg	Lys Gly Lys Gly Glu
20995	21000	21005
Gln Thr Trp Ser His	Ala Gly Ile Ser Lys	Thr Cys Glu Ile Glu
21010	21015	21020
Val Ser Gln Leu Lys	Glu Gln Ser Val Leu	Glu Phe Arg Val Phe
21025	21030	21035
Ala Lys Asn Glu Lys	Gly Leu Ser Asp Pro	Val Thr Ile Gly Pro
21040	21045	21050
Ile Thr Val Lys Glu	Leu Ile Ile Thr Pro	Glu Val Asp Leu Ser
21055	21060	21065

Asp Ile Pro Gly Ala	Gln Val Thr Val Arg	Ile Gly His Asn Val
21070	21075	21080
His Leu Glu Leu Pro	Tyr Lys Gly Lys Pro	Lys Pro Ser Ile Ser
21085	21090	21095
Trp Leu Lys Asp Gly	Leu Pro Leu Lys Glu	Ser Glu Phe Val Arg
21100	21105	21110
Phe Ser Lys Thr Glu	Asn Lys Ile Thr Leu	Ser Ile Lys Asn Ala
21115	21120	21125
Lys Lys Glu His Gly	Gly Lys Tyr Thr Val	Ile Leu Asp Asn Ala
21130	21135	21140
Val Cys Arg Ile Ala	Val Pro Ile Thr Val	Ile Thr Leu Gly Pro
21145	21150	21155
Pro Ser Lys Pro Lys	Gly Pro Ile Arg Phe	Asp Glu Ile Lys Ala
21160	21165	21170
Asp Ser Val Ile Leu	Ser Trp Asp Val Pro	Glu Asp Asn Gly Gly
21175	21180	21185
Gly Glu Ile Thr Cys	Tyr Ser Ile Glu Lys	Arg Glu Thr Ser Gln
21190	21195	21200
Thr Asn Trp Lys Met	Val Cys Ser Ser Val	Ala Arg Thr Thr Phe
21205	21210	21215
Lys Val Pro Asn Leu	Val Lys Asp Ala Glu	Tyr Gln Phe Arg Val
21220	21225	21230
Arg Ala Glu Asn Arg	Tyr Gly Val Ser Gln	Pro Leu Val Ser Ser
21235	21240	21245
Ile Ile Val Ala Lys	His Gln Phe Arg Ile	Pro Gly Pro Pro Gly
21250	21255	21260
Lys Pro Val Ile Tyr	Asn Val Thr Ser Asp	Gly Met Ser Leu Thr
21265	21270	21275
Trp Asp Ala Pro Val	Tyr Asp Gly Gly Ser	Glu Val Thr Gly Phe
21280	21285	21290
His Val Glu Lys Lys	Glu Arg Asn Ser Ile	Leu Trp Gln Lys Val
21295	21300	21305
Asn Thr Ser Pro Ile	Ser Gly Arg Glu Tyr	Arg Ala Thr Gly Leu
21310	21315	21320
Val Glu Gly Leu Asp	Tyr Gln Phe Arg Val	Tyr Ala Glu Asn Ser
21325	21330	21335
Ala Gly Leu Ser Ser	Pro Ser Asp Pro Ser	Lys Phe Thr Leu Ala
21340	21345	21350
Val Ser Pro Val Asp	Pro Pro Gly Thr Pro	Asp Tyr Ile Asp Val
21355	21360	21365
Thr Arg Glu Thr Ile	Thr Leu Lys Trp Asn	Pro Pro Leu Arg Asp
21370	21375	21380
Gly Gly Ser Lys Ile	Val Gly Tyr Ser Ile	Glu Lys Arg Gln Gly
21385	21390	21395
Asn Glu Arg Trp Val	Arg Cys Asn Phe Thr	Asp Val Ser Glu Cys
21400	21405	21410
Gln Tyr Thr Val Thr	Gly Leu Ser Pro Gly	Asp Arg Tyr Glu Phe
21415	21420	21425
Arg Ile Ile Ala Arg	Asn Ala Val Gly Thr	Ile Ser Pro Pro Ser
21430	21435	21440
Gln Ser Ser Gly Ile	Ile Met Thr Arg Asp	Glu Asn Val Pro Pro
21445	21450	21455
Ile Val Glu Phe Gly	Pro Glu Tyr Phe Asp	Gly Leu Ile Ile Lys
21460	21465	21470
Ser Gly Glu Ser Leu	Arg Ile Lys Ala Leu	Val Gln Gly Arg Pro
21475	21480	21485
Val Pro Arg Val Thr	Trp Phe Lys Asp Gly	Val Glu Ile Glu Lys
21490	21495	21500
Arg Met Asn Met Glu	Ile Thr Asn Val Leu	Gly Ser Thr Ser Leu

21505	Phe Val Arg Asp Ala	21510	Thr Arg Asp His Arg	21515	Gly Val Tyr Thr Val
21520	Glu Ala Lys Asn Ala	21525	Ser Gly Ser Ala Lys	21530	Ala Glu Ile Lys Val
21535	Lys Val Gln Asp Thr	21540	Pro Gly Lys Val Val	21545	Gly Pro Ile Arg Phe
21550	Thr Asn Ile Thr Gly	21555	Glu Lys Met Thr Leu	21560	Trp Trp Asp Ala Pro
21565	Leu Asn Asp Gly Cys	21570	Ala Pro Ile Thr His	21575	Tyr Ile Ile Glu Lys
21580	Arg Glu Thr Ser Arg	21585	Leu Ala Trp Ala Leu	21590	Ile Glu Asp Lys Cys
21595	Glu Ala Gln Ser Tyr	21600	Thr Ala Ile Lys Leu	21605	Ile Asn Gly Asn Glu
21610	Tyr Gln Phe Arg Val	21615	Ser Ala Val Asn Lys	21620	Phe Gly Val Gly Arg
21625	Pro Leu Asp Ser Asp	21630	Pro Val Val Ala Gln	21635	Ile Gln Tyr Thr Val
21640	Pro Asp Ala Pro Gly	21645	Ile Pro Glu Pro Ser	21650	Asn Ile Thr Gly Asn
21655	Ser Ile Thr Leu Thr	21660	Trp Ala Arg Pro Glu	21665	Ser Asp Gly Gly Ser
21670	Glu Ile Gln Gln Tyr	21675	Ile Leu Glu Arg Arg	21680	Glu Lys Lys Ser Thr
21685	Arg Trp Val Lys Val	21690	Ile Ser Lys Arg Pro	21695	Ile Ser Glu Thr Arg
21700	Phe Lys Val Thr Gly	21705	Leu Thr Glu Gly Asn	21710	Glu Tyr Glu Phe His
21715	Val Met Ala Glu Asn	21720	Ala Ala Gly Val Gly	21725	Pro Ala Ser Gly Ile
21730	Ser Arg Leu Ile Lys	21735	Cys Arg Glu Pro Val	21740	Asn Pro Pro Gly Pro
21745	Pro Thr Val Val Lys	21750	Val Thr Asp Thr Ser	21755	Lys Thr Thr Val Ser
21760	Leu Glu Trp Ser Lys	21765	Pro Val Phe Asp Gly	21770	Gly Met Glu Ile Ile
21775	Gly Tyr Ile Ile Glu	21780	Met Cys Lys Thr Asp	21785	Leu Gly Asp Trp His
21790	Lys Val Asn Ala Glu	21795	Ala Cys Val Lys Thr	21800	Arg Tyr Thr Val Thr
21805	Asp Leu Gln Ala Gly	21810	Glu Glu Tyr Lys Phe	21815	Arg Val Ser Ala Ile
21820	Asn Gly Ala Gly Lys	21825	Gly Asp Ser Cys Glu	21830	Val Thr Gly Thr Ile
21835	Lys Ala Val Asp Arg	21840	Leu Thr Ala Pro Glu	21845	Leu Asp Ile Asp Ala
21850	Asn Phe Lys Gln Thr	21855	His Val Val Arg Ala	21860	Gly Ala Ser Ile Arg
21865	Leu Phe Ile Ala Tyr	21870	Gln Gly Arg Pro Thr	21875	Pro Thr Ala Val Trp
21880	Ser Lys Pro Asp Ser	21885	Asn Leu Ser Leu Arg	21890	Ala Asp Ile His Thr
21895	Thr Asp Ser Phe Ser	21900	Thr Leu Thr Val Glu	21905	Asn Cys Asn Arg Asn
21910	Asp Ala Gly Lys Tyr	21915	Thr Leu Thr Val Glu	21920	Asn Asn Ser Gly Ser
21925	Lys Ser Ile Thr Phe	21930	Thr Val Lys Val Leu	21935	Asp Thr Pro Gly Pro
21940		21945		21950	

Pro	Gly	Pro	Ile	Thr	Phe	Lys	Asp	Val	Thr	Arg	Gly	Ser	Ala	Thr
21955					21960					21965				
Leu	Met	Trp	Asp	Ala	Pro	Leu	Leu	Asp	Gly	Gly	Ala	Arg	Ile	His
21970					21975					21980				
His	Tyr	Val	Val	Glu	Lys	Arg	Glu	Ala	Ser	Arg	Arg	Ser	Trp	Gln
21985					21990					21995				
Val	Ile	Ser	Glu	Lys	Cys	Thr	Arg	Gln	Ile	Phe	Lys	Val	Asn	Asp
22000					22005					22010				
Leu	Ala	Glu	Gly	Val	Pro	Tyr	Tyr	Phe	Arg	Val	Ser	Ala	Val	Asn
22015					22020					22025				
Glu	Tyr	Gly	Val	Gly	Glu	Pro	Tyr	Glu	Met	Pro	Glu	Pro	Ile	Val
22030					22035					22040				
Ala	Thr	Glu	Gln	Pro	Ala	Pro	Pro	Arg	Arg	Leu	Asp	Val	Val	Asp
22045					22050					22055				
Thr	Ser	Lys	Ser	Ser	Ala	Val	Leu	Ala	Trp	Leu	Lys	Pro	Asp	His
22060					22065					22070				
Asp	Gly	Gly	Ser	Arg	Ile	Thr	Gly	Tyr	Leu	Leu	Glu	Met	Arg	Gln
22075					22080					22085				
Lys	Gly	Ser	Asp	Leu	Trp	Val	Glu	Ala	Gly	His	Thr	Lys	Gln	Leu
22090					22095					22100				
Thr	Phe	Thr	Val	Glu	Arg	Leu	Val	Glu	Lys	Thr	Glu	Tyr	Glu	Phe
22105					22110					22115				
Arg	Val	Lys	Ala	Lys	Asn	Asp	Ala	Gly	Tyr	Ser	Glu	Pro	Arg	Glu
22120					22125					22130				
Ala	Phe	Ser	Ser	Val	Ile	Ile	Lys	Glu	Pro	Gln	Ile	Glu	Pro	Thr
22135					22140					22145				
Ala	Asp	Leu	Thr	Gly	Ile	Thr	Asn	Gln	Leu	Ile	Thr	Cys	Lys	Ala
22150					22155					22160				
Gly	Ser	Pro	Phe	Thr	Ile	Asp	Val	Pro	Ile	Ser	Gly	Arg	Pro	Ala
22165					22170					22175				
Pro	Lys	Val	Thr	Trp	Lys	Leu	Glu	Glu	Met	Arg	Leu	Lys	Glu	Thr
22180					22185					22190				
Asp	Arg	Val	Ser	Ile	Thr	Thr	Thr	Lys	Asp	Arg	Thr	Thr	Leu	Thr
22195					22200					22205				
Val	Lys	Asp	Ser	Met	Arg	Gly	Asp	Ser	Gly	Arg	Tyr	Phe	Leu	Thr
22210					22215					22220				
Leu	Glu	Asn	Thr	Ala	Gly	Val	Lys	Thr	Phe	Ser	Val	Thr	Val	Val
22225					22230					22235				
Val	Ile	Gly	Arg	Pro	Gly	Pro	Val	Thr	Gly	Pro	Ile	Glu	Val	Ser
22240					22245					22250				
Ser	Val	Ser	Ala	Glu	Ser	Cys	Val	Leu	Ser	Trp	Gly	Glu	Pro	Lys
22255					22260					22265				
Asp	Gly	Gly	Gly	Thr	Glu	Ile	Thr	Asn	Tyr	Ile	Val	Glu	Lys	Arg
22270					22275					22280				
Glu	Ser	Gly	Thr	Thr	Ala	Trp	Gln	Leu	Val	Asn	Ser	Ser	Val	Lys
22285					22290					22295				
Arg	Thr	Gln	Ile	Lys	Val	Thr	His	Leu	Thr	Lys	Tyr	Met	Glu	Tyr
22300					22305					22310				
Ser	Phe	Arg	Val	Ser	Ser	Glu	Asn	Arg	Phe	Gly	Val	Ser	Lys	Pro
22315					22320					22325				
Leu	Glu	Ser	Ala	Pro	Ile	Ile	Ala	Glu	His	Pro	Phe	Val	Pro	Pro
22330					22335					22340				
Ser	Ala	Pro	Thr	Arg	Pro	Glu	Val	Tyr	His	Val	Ser	Ala	Asn	Ala
22345					22350					22355				
Met	Ser	Ile	Arg	Trp	Glu	Glu	Pro	Tyr	His	Asp	Gly	Gly	Ser	Lys
22360					22365					22370				
Ile	Ile	Gly	Tyr	Trp	Val	Glu	Lys	Lys	Glu	Arg	Asn	Thr	Ile	Leu
22375					22380					22385				
Trp	Val	Lys	Glu	Asn	Lys	Val	Pro	Cys	Leu	Glu	Cys	Asn	Tyr	Lys

22390	Val Thr Gly Leu Val	22395	Glu Gly Leu Glu Tyr	22400	Gln Phe Arg Thr Tyr
22405	Ala Leu Asn Ala Ala	22410	Gly Val Ser Lys Ala	22415	Ser Glu Ala Ser Arg
22420	Pro Ile Met Ala Gln	22425	Asn Pro Val Asp Ala	22430	Pro Gly Arg Pro Glu
22435	Val Thr Asp Val Thr	22440	Arg Ser Thr Val Ser	22445	Leu Ile Trp Ser Ala
22450	Pro Ala Tyr Asp Gly	22455	Gly Ser Lys Val Val	22460	Gly Tyr Ile Ile Glu
22465	Arg Lys Pro Val Ser	22470	Glu Val Gly Asp Gly	22475	Arg Trp Leu Lys Cys
22480	Asn Tyr Thr Ile Val	22485	Ser Asp Asn Phe Phe	22490	Thr Val Thr Ala Leu
22495	Ser Glu Gly Asp Thr	22500	Tyr Glu Phe Arg Val	22505	Leu Ala Lys Asn Ala
22510	Ala Gly Val Ile Ser	22515	Lys Gly Ser Glu Ser	22520	Thr Gly Pro Val Thr
22525	Cys Arg Asp Glu Tyr	22530	Ala Pro Pro Lys Ala	22535	Glu Leu Asp Ala Arg
22540	Leu His Gly Asp Leu	22545	Val Thr Ile Arg Ala	22550	Gly Ser Asp Leu Val
22555	Leu Asp Ala Ala Val	22560	Gly Gly Lys Pro Glu	22565	Pro Lys Ile Ile Trp
22570	Thr Lys Gly Asp Lys	22575	Glu Leu Asp Leu Cys	22580	Glu Lys Val Ser Leu
22585	Gln Tyr Thr Gly Lys	22590	Arg Ala Thr Ala Val	22595	Ile Lys Phe Cys Asp
22600	Arg Ser Asp Ser Gly	22605	Lys Tyr Thr Leu Thr	22610	Val Lys Asn Ala Ser
22615	Gly Thr Lys Ala Val	22620	Ser Val Met Val Lys	22625	Val Leu Asp Ser Pro
22630	Gly Pro Cys Gly Lys	22635	Leu Thr Val Ser Arg	22640	Val Thr Gln Glu Lys
22645	Cys Thr Leu Ala Trp	22650	Ser Leu Pro Gln Glu	22655	Asp Gly Gly Ala Glu
22660	Ile Thr His Tyr Ile	22665	Val Glu Arg Arg Glu	22670	Thr Ser Arg Leu Asn
22675	Trp Val Ile Val Glu	22680	Gly Glu Cys Pro Thr	22685	Leu Ser Tyr Val Val
22690	Thr Arg Leu Ile Lys	22695	Asn Asn Glu Tyr Ile	22700	Phe Arg Val Arg Ala
22705	Val Asn Lys Tyr Gly	22710	Pro Gly Val Pro Val	22715	Glu Ser Glu Pro Ile
22720	Val Ala Arg Asn Ser	22725	Phe Thr Ile Pro Ser	22730	Pro Pro Gly Ile Pro
22735	Glu Glu Val Gly Thr	22740	Gly Lys Glu His Ile	22745	Ile Ile Gln Trp Thr
22750	Lys Pro Glu Ser Asp	22755	Gly Gly Asn Glu Ile	22760	Ser Asn Tyr Leu Val
22765	Asp Lys Arg Glu Lys	22770	Glu Ser Leu Arg Trp	22775	Thr Arg Val Asn Lys
22780	Asp Tyr Val Val Tyr	22785	Asp Thr Arg Leu Lys	22790	Val Thr Ser Leu Met
22795	Glu Gly Cys Asp Tyr	22800	Gln Phe Arg Val Thr	22805	Ala Val Asn Ala Ala
22810	Gly Asn Ser Glu Pro	22815	Ser Glu Arg Ser Asn	22820	Phe Ile Ser Cys Arg
22825		22830		22835	

Glu Pro Ser Tyr Thr	Pro Gly Pro Pro Ser	Ala Pro Arg Val Val
22840	22845	22850
Asp Thr Thr Lys His	Ser Ile Ser Leu Ala	Trp Thr Lys Pro Met
22855	22860	22865
Tyr Asp Gly Gly Thr	Asp Ile Val Gly Tyr	Val Leu Glu Met Gln
22870	22875	22880
Glu Lys Asp Thr Asp	Gln Trp Tyr Arg Val	His Thr Asn Ala Thr
22885	22890	22895
Ile Arg Asn Thr Glu	Phe Thr Val Pro Asp	Leu Lys Met Gly Gln
22900	22905	22910
Lys Tyr Ser Phe Arg	Val Ala Ala Val Asn	Val Lys Gly Met Ser
22915	22920	22925
Glu Tyr Ser Glu Ser	Ile Ala Glu Ile Glu	Pro Val Glu Arg Ile
22930	22935	22940
Glu Ile Pro Asp Leu	Glu Leu Ala Asp Asp	Leu Lys Lys Thr Val
22945	22950	22955
Thr Ile Arg Ala Gly	Ala Ser Leu Arg Leu	Met Val Ser Val Ser
22960	22965	22970
Gly Arg Pro Pro Pro	Val Ile Thr Trp Ser	Lys Gln Gly Ile Asp
22975	22980	22985
Leu Ala Ser Arg Ala	Ile Ile Asp Thr Thr	Glu Ser Tyr Ser Leu
22990	22995	23000
Leu Ile Val Asp Lys	Val Asn Arg Tyr Asp	Ala Gly Lys Tyr Thr
23005	23010	23015
Ile Glu Ala Glu Asn	Gln Ser Gly Lys Lys	Ser Ala Thr Val Leu
23020	23025	23030
Val Lys Val Tyr Asp	Thr Pro Gly Pro Cys	Pro Ser Val Lys Val
23035	23040	23045
Lys Glu Val Ser Arg	Asp Ser Val Thr Ile	Thr Trp Glu Ile Pro
23050	23055	23060
Thr Ile Asp Gly Gly	Ala Pro Ile Asn Asn	Tyr Ile Val Glu Lys
23065	23070	23075
Arg Glu Ala Ala Met	Arg Ala Phe Lys Thr	Val Thr Thr Lys Cys
23080	23085	23090
Ser Lys Thr Leu Tyr	Arg Ile Ser Gly Leu	Val Glu Gly Thr Met
23095	23100	23105
His Tyr Phe Arg Val	Leu Pro Glu Asn Ile	Tyr Gly Ile Gly Glu
23110	23115	23120
Pro Cys Glu Thr Ser	Asp Ala Val Leu Val	Ser Glu Val Pro Leu
23125	23130	23135
Val Pro Ala Lys Leu	Glu Val Val Asp Val	Thr Lys Ser Thr Val
23140	23145	23150
Thr Leu Ala Trp Glu	Lys Pro Leu Tyr Asp	Gly Gly Ser Arg Leu
23155	23160	23165
Thr Gly Tyr Val Leu	Glu Ala Cys Lys Ala	Gly Thr Glu Arg Trp
23170	23175	23180
Met Lys Val Val Thr	Leu Lys Pro Thr Val	Leu Glu His Thr Val
23185	23190	23195
Thr Ser Leu Asn Glu	Gly Glu Gln Tyr Leu	Phe Arg Ile Arg Ala
23200	23205	23210
Gln Asn Glu Lys Gly	Val Ser Glu Pro Arg	Glu Thr Val Thr Ala
23215	23220	23225
Val Thr Val Gln Asp	Leu Arg Val Leu Pro	Thr Ile Asp Leu Ser
23230	23235	23240
Thr Met Pro Gln Lys	Thr Ile His Val Pro	Ala Gly Arg Pro Val
23245	23250	23255
Glu Leu Val Ile Pro	Ile Ala Gly Arg Pro	Pro Pro Ala Ala Ser
23260	23265	23270
Trp Phe Phe Ala Gly	Ser Lys Leu Arg Glu	Ser Glu Arg Val Thr

23275	Val Glu Thr His Thr	23280	Lys Val Ala Lys Leu	23285	Thr Ile Arg Glu Thr
23290	Thr Ile Arg Asp Thr	23295	Gly Glu Tyr Thr Leu	23300	Glu Leu Lys Asn Val
23305	Thr Gly Thr Thr Ser	23310	Glu Thr Ile Lys Val	23315	Ile Ile Leu Asp Lys
23320	Pro Gly Pro Pro Thr	23325	Gly Pro Ile Lys Ile	23330	Asp Glu Ile Asp Ala
23335	Thr Ser Ile Thr Ile	23340	Ser Trp Glu Pro Pro	23345	Glu Leu Asp Gly Gly
23350	Ala Pro Leu Ser Gly	23355	Tyr Val Val Glu Gln	23360	Arg Asp Ala His Arg
23365	Pro Gly Trp Leu Pro	23370	Val Ser Glu Ser Val	23375	Thr Arg Ser Thr Phe
23380	Lys Phe Thr Arg Leu	23385	Thr Glu Gly Asn Glu	23390	Tyr Val Phe Arg Val
23395	Ala Ala Thr Asn Arg	23400	Phe Gly Ile Gly Ser	23405	Tyr Leu Gln Ser Glu
23410	Val Ile Glu Cys Arg	23415	Ser Ser Ile Arg Ile	23420	Pro Gly Pro Pro Glu
23425	Thr Leu Gln Ile Phe	23430	Asp Val Ser Arg Asp	23435	Gly Met Thr Leu Thr
23440	Trp Tyr Pro Pro Glu	23445	Asp Asp Gly Gly Ser	23450	Gln Val Thr Gly Tyr
23455	Ile Val Glu Arg Lys	23460	Glu Val Arg Ala Asp	23465	Arg Trp Val Arg Val
23470	Asn Lys Val Pro Val	23475	Thr Met Thr Arg Tyr	23480	Arg Ser Thr Gly Leu
23485	Thr Glu Gly Leu Glu	23490	Tyr Glu His Arg Val	23495	Thr Ala Ile Asn Ala
23500	Arg Gly Ser Gly Lys	23505	Pro Ser Arg Pro Ser	23510	Lys Pro Ile Val Ala
23515	Met Asp Pro Ile Ala	23520	Pro Pro Gly Lys Pro	23525	Gln Asn Pro Arg Val
23530	Thr Asp Thr Thr Arg	23535	Thr Ser Val Ser Leu	23540	Ala Trp Ser Val Pro
23545	Glu Asp Glu Gly Gly	23550	Ser Lys Val Thr Gly	23555	Tyr Leu Ile Glu Met
23560	Gln Lys Val Asp Gln	23565	His Glu Trp Thr Lys	23570	Cys Asn Thr Thr Pro
23575	Thr Lys Ile Arg Glu	23580	Tyr Thr Leu Thr His	23585	Leu Pro Gln Gly Ala
23590	Glu Tyr Arg Phe Arg	23595	Val Leu Ala Cys Asn	23600	Ala Gly Gly Pro Gly
23605	Glu Pro Ala Glu Val	23610	Pro Gly Thr Val Lys	23615	Val Thr Glu Met Leu
23620	Glu Tyr Pro Asp Tyr	23625	Glu Leu Asp Glu Arg	23630	Tyr Gln Glu Gly Ile
23635	Phe Val Arg Gln Gly	23640	Gly Val Ile Arg Leu	23645	Thr Ile Pro Ile Lys
23650	Gly Lys Pro Phe Pro	23655	Ile Cys Lys Trp Thr	23660	Lys Glu Gly Gln Asp
23665	Ile Ser Lys Arg Ala	23670	Met Ile Ala Thr Ser	23675	Glu Thr His Thr Glu
23680	Leu Val Ile Lys Glu	23685	Ala Asp Arg Gly Asp	23690	Ser Gly Thr Tyr Asp
23695	Leu Val Leu Glu Asn	23700	Lys Cys Gly Lys Lys	23705	Ala Val Tyr Ile Lys
23710		23715		23720	

Val Arg Val Ile Gly Ser Pro Asn Ser Pro Glu Gly Pro Leu Glu		
23725	23730	23735
Tyr Asp Asp Ile Gln Val Arg Ser Val Arg Val Ser Trp Arg Pro		
23740	23745	23750
Pro Ala Asp Asp Gly Gly Ala Asp Ile Leu Gly Tyr Ile Leu Glu		
23755	23760	23765
Arg Arg Glu Val Pro Lys Ala Ala Trp Tyr Thr Ile Asp Ser Arg		
23770	23775	23780
Val Arg Gly Thr Ser Leu Val Val Lys Gly Leu Lys Glu Asn Val		
23785	23790	23795
Glu Tyr His Phe Arg Val Ser Ala Glu Asn Gln Phe Gly Ile Ser		
23800	23805	23810
Lys Pro Leu Lys Ser Glu Glu Pro Val Thr Pro Lys Thr Pro Leu		
23815	23820	23825
Asn Pro Pro Glu Pro Pro Ser Asn Pro Pro Glu Val Leu Asp Val		
23830	23835	23840
Thr Lys Ser Ser Val Ser Leu Ser Trp Ser Arg Pro Lys Asp Asp		
23845	23850	23855
Gly Gly Ser Arg Val Thr Gly Tyr Tyr Ile Glu Arg Lys Glu Thr		
23860	23865	23870
Ser Thr Asp Lys Trp Val Arg His Asn Lys Thr Gln Ile Thr Thr		
23875	23880	23885
Thr Met Tyr Thr Val Thr Gly Leu Val Pro Asp Ala Glu Tyr Gln		
23890	23895	23900
Phe Arg Ile Ile Ala Gln Asn Asp Val Gly Leu Ser Glu Thr Ser		
23905	23910	23915
Pro Ala Ser Glu Pro Val Val Cys Lys Asp Pro Phe Asp Lys Pro		
23920	23925	23930
Ser Gln Pro Gly Glu Leu Glu Ile Leu Ser Ile Ser Lys Asp Ser		
23935	23940	23945
Val Thr Leu Gln Trp Glu Lys Pro Glu Cys Asp Gly Gly Lys Glu		
23950	23955	23960
Ile Leu Gly Tyr Trp Val Glu Tyr Arg Gln Ser Gly Asp Ser Ala		
23965	23970	23975
Trp Lys Lys Ser Asn Lys Glu Arg Ile Lys Asp Lys Gln Phe Thr		
23980	23985	23990
Ile Gly Gly Leu Leu Glu Ala Thr Glu Tyr Glu Phe Arg Val Phe		
23995	24000	24005
Ala Glu Asn Glu Thr Gly Leu Ser Arg Pro Arg Arg Thr Ala Met		
24010	24015	24020
Ser Ile Lys Thr Lys Leu Thr Ser Gly Glu Ala Pro Gly Ile Arg		
24025	24030	24035
Lys Glu Met Lys Asp Val Thr Thr Lys Leu Gly Glu Ala Ala Gln		
24040	24045	24050
Leu Ser Cys Gln Ile Val Gly Arg Pro Leu Pro Asp Ile Lys Trp		
24055	24060	24065
Tyr Arg Phe Gly Lys Glu Leu Ile Gln Ser Arg Lys Tyr Lys Met		
24070	24075	24080
Ser Ser Asp Gly Arg Thr His Thr Leu Thr Val Met Thr Glu Glu		
24085	24090	24095
Gln Glu Asp Glu Gly Val Tyr Thr Cys Ile Ala Thr Asn Glu Val		
24100	24105	24110
Gly Glu Val Glu Thr Ser Ser Lys Leu Leu Leu Gln Ala Thr Pro		
24115	24120	24125
Gln Phe His Pro Gly Tyr Pro Leu Lys Glu Lys Tyr Tyr Gly Ala		
24130	24135	24140
Val Gly Ser Thr Leu Arg Leu His Val Met Tyr Ile Gly Arg Pro		
24145	24150	24155
Val Pro Ala Met Thr Trp Phe His Gly Gln Lys Leu Leu Gln Asn		

24160	24165	24170
Ser Glu Asn Ile Thr	Ile Glu Asn Thr Glu	His Tyr Thr His Leu
24175	24180	24185
Val Met Lys Asn Val	Gln Arg Lys Thr His	Ala Gly Lys Tyr Lys
24190	24195	24200
Val Gln Leu Ser Asn	Val Phe Gly Thr Val	Asp Ala Ile Leu Asp
24205	24210	24215
Val Glu Ile Gln Asp	Lys Pro Asp Lys Pro	Thr Gly Pro Ile Val
24220	24225	24230
Ile Glu Ala Leu Leu	Lys Asn Ser Ala Val	Ile Ser Trp Lys Pro
24235	24240	24245
Pro Ala Asp Asp Gly	Gly Ser Trp Ile Thr	Asn Tyr Val Val Glu
24250	24255	24260
Lys Cys Glu Ala Lys	Glu Gly Ala Glu Trp	Gln Leu Val Ser Ser
24265	24270	24275
Ala Ile Ser Val Thr	Thr Cys Arg Ile Val	Asn Leu Thr Glu Asn
24280	24285	24290
Ala Gly Tyr Tyr Phe	Arg Val Ser Ala Gln	Asn Thr Phe Gly Ile
24295	24300	24305
Ser Asp Pro Leu Glu	Val Ser Ser Val Val	Ile Ile Lys Ser Pro
24310	24315	24320
Phe Glu Lys Pro Gly	Ala Pro Gly Lys Pro	Thr Ile Thr Ala Val
24325	24330	24335
Thr Lys Asp Ser Cys	Val Val Ala Trp Lys	Pro Pro Ala Ser Asp
24340	24345	24350
Gly Gly Ala Lys Ile	Arg Asn Tyr Tyr Leu	Glu Lys Arg Glu Lys
24355	24360	24365
Lys Gln Asn Lys Trp	Ile Ser Val Thr Thr	Glu Glu Ile Arg Glu
24370	24375	24380
Thr Val Phe Ser Val	Lys Asn Leu Ile Glu	Gly Leu Glu Tyr Glu
24385	24390	24395
Phe Arg Val Lys Cys	Glu Asn Leu Gly Gly	Glu Ser Glu Trp Ser
24400	24405	24410
Glu Ile Ser Glu Pro	Ile Thr Pro Lys Ser	Asp Val Pro Ile Gln
24415	24420	24425
Ala Pro His Phe Lys	Glu Glu Leu Arg Asn	Leu Asn Val Arg Tyr
24430	24435	24440
Gln Ser Asn Ala Thr	Leu Val Cys Lys Val	Thr Gly His Pro Lys
24445	24450	24455
Pro Ile Val Lys Trp	Tyr Arg Gln Gly Lys	Glu Ile Ile Ala Asp
24460	24465	24470
Gly Leu Lys Tyr Arg	Ile Gln Glu Phe Lys	Gly Gly Tyr His Gln
24475	24480	24485
Leu Ile Ile Ala Ser	Val Thr Asp Asp Asp	Ala Thr Val Tyr Gln
24490	24495	24500
Val Arg Ala Thr Asn	Gln Gly Gly Ser Val	Ser Gly Thr Ala Ser
24505	24510	24515
Leu Glu Val Glu Val	Pro Ala Lys Ile His	Leu Pro Lys Thr Leu
24520	24525	24530
Glu Gly Met Gly Ala	Val His Ala Leu Arg	Gly Glu Val Val Ser
24535	24540	24545
Ile Lys Ile Pro Phe	Ser Gly Lys Pro Asp	Pro Val Ile Thr Trp
24550	24555	24560
Gln Lys Gly Gln Asp	Leu Ile Asp Asn Asn	Gly His Tyr Gln Val
24565	24570	24575
Ile Val Thr Arg Ser	Phe Thr Ser Leu Val	Phe Pro Asn Gly Val
24580	24585	24590
Glu Arg Lys Asp Ala	Gly Phe Tyr Val Val	Cys Ala Lys Asn Arg
24595	24600	24605

Phe Gly Ile Asp Gln	Lys Thr Val Glu Leu	Asp Val Ala Asp Val
24610	24615	24620
Pro Asp Pro Pro Arg	Gly Val Lys Val Ser	Asp Ala Ser Arg Asp
24625	24630	24635
Ser Val Asn Leu Thr	Trp Thr Glu Pro Ala	Ser Asp Gly Gly Ser
24640	24645	24650
Lys Ile Thr Asn Tyr	Ile Val Glu Lys Cys	Ala Thr Thr Ala Glu
24655	24660	24665
Arg Trp Leu Arg Val	Gly Gln Ala Arg Glu	Thr Arg Tyr Thr Val
24670	24675	24680
Ile Asn Leu Phe Gly	Lys Thr Ser Tyr Gln	Phe Arg Val Ile Ala
24685	24690	24695
Glu Asn Lys Phe Gly	Leu Ser Lys Pro Ser	Glu Pro Ser Glu Pro
24700	24705	24710
Thr Ile Thr Lys Glu	Asp Lys Thr Arg Ala	Met Asn Tyr Asp Glu
24715	24720	24725
Glu Val Asp Glu Thr	Arg Glu Val Ser Met	Thr Lys Ala Ser His
24730	24735	24740
Ser Ser Thr Lys Glu	Leu Tyr Glu Lys Tyr	Met Ile Ala Glu Asp
24745	24750	24755
Leu Gly Arg Gly Glu	Phe Gly Ile Val His	Arg Cys Val Glu Thr
24760	24765	24770
Ser Ser Lys Lys Thr	Tyr Met Ala Lys Phe	Val Lys Val Lys Gly
24775	24780	24785
Thr Asp Gln Val Leu	Val Lys Lys Glu Ile	Ser Ile Leu Asn Ile
24790	24795	24800
Ala Arg His Arg Asn	Ile Leu His Leu His	Glu Ser Phe Glu Ser
24805	24810	24815
Met Glu Glu Leu Val	Met Ile Phe Glu Phe	Ile Ser Gly Leu Asp
24820	24825	24830
Ile Phe Glu Arg Ile	Asn Thr Ser Ala Phe	Glu Leu Asn Glu Arg
24835	24840	24845
Glu Ile Val Ser Tyr	Val His Gln Val Cys	Glu Ala Leu Gln Phe
24850	24855	24860
Leu His Ser His Asn	Ile Gly His Phe Asp	Ile Arg Pro Glu Asn
24865	24870	24875
Ile Ile Tyr Gln Thr	Arg Arg Ser Ser Thr	Ile Lys Ile Ile Glu
24880	24885	24890
Phe Gly Gln Ala Arg	Gln Leu Lys Pro Gly	Asp Asn Phe Arg Leu
24895	24900	24905
Leu Phe Thr Ala Pro	Glu Tyr Tyr Ala Pro	Glu Val His Gln His
24910	24915	24920
Asp Val Val Ser Thr	Ala Thr Asp Met Trp	Ser Leu Gly Thr Leu
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Val Tyr Val Leu Leu	Ser Gly Ile Asn Pro	Phe Leu Ala Glu Thr
24940	24945	24950
Asn Gln Gln Ile Ile	Glu Asn Ile Met Asn	Ala Glu Tyr Thr Phe
24955	24960	24965
Asp Glu Glu Ala Phe	Lys Glu Ile Ser Ile	Glu Ala Met Asp Phe
24970	24975	24980
Val Asp Arg Leu Leu	Val Lys Glu Arg Lys	Ser Arg Met Thr Ala
24985	24990	24995
Ser Glu Ala Leu Gln	His Pro Trp Leu Lys	Gln Lys Ile Glu Arg
25000	25005	25010
Val Ser Thr Lys Val	Ile Arg Thr Leu Lys	His Arg Arg Tyr Tyr
25015	25020	25025
His Thr Leu Ile Lys	Lys Asp Leu Asn Met	Val Val Ser Ala Ala
25030	25035	25040
Arg Ile Ser Cys Gly	Gly Ala Ile Arg Ser	Gln Lys Gly Val Ser

25045	25050	25055
Val Ala Lys Val Lys	Val Ala Ser Ile Glu	Ile Gly Pro Val Ser
25060	25065	25070
Gly Gln Ile Met His	Ala Val Gly Glu Glu	Gly Gly His Val Lys
25075	25080	25085
Tyr Val Cys Lys Ile	Glu Asn Tyr Asp Gln	Ser Thr Gln Val Thr
25090	25095	25100
Trp Tyr Phe Gly Val	Arg Gln Leu Glu Asn	Ser Glu Lys Tyr Glu
25105	25110	25115
Ile Thr Tyr Glu Asp	Gly Val Ala Ile Leu	Tyr Val Lys Asp Ile
25120	25125	25130
Thr Lys Leu Asp Asp	Gly Thr Tyr Arg Cys	Lys Val Val Asn Asp
25135	25140	25145
Tyr Gly Glu Asp Ser	Ser Tyr Ala Glu Leu	Phe Val Lys Gly Val
25150	25155	25160
Arg Glu Val Tyr Asp	Tyr Tyr Cys Arg Arg	Thr Met Lys Lys Ile
25165	25170	25175
Lys Arg Arg Thr Asp	Thr Met Arg Leu Leu	Glu Arg Pro Pro Glu
25180	25185	25190
Phe Thr Leu Pro Leu	Tyr Asn Lys Thr Ala	Tyr Val Gly Glu Asn
25195	25200	25205
Val Arg Phe Gly Val	Thr Ile Thr Val His	Pro Glu Pro His Val
25210	25215	25220
Thr Trp Tyr Lys Ser	Gly Gln Lys Ile Lys	Pro Gly Asp Asn Asp
25225	25230	25235
Lys Lys Tyr Thr Phe	Glu Ser Asp Lys Gly	Leu Tyr Gln Leu Thr
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Ile Asn Ser Val Thr	Thr Asp Asp Asp Ala	Glu Tyr Thr Val Val
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Ala Arg Asn Lys Tyr	Gly Glu Asp Ser Cys	Lys Ala Lys Leu Thr
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Val Thr Leu His Pro	Pro Pro Thr Asp Ser	Thr Leu Arg Pro Met
25285	25290	25295
Phe Lys Arg Leu Leu	Ala Asn Ala Glu Cys	Gln Glu Gly Gln Ser
25300	25305	25310
Val Cys Phe Glu Ile	Arg Val Ser Gly Ile	Pro Pro Pro Thr Leu
25315	25320	25325
Lys Trp Glu Lys Asp	Gly Gln Pro Leu Ser	Leu Gly Pro Asn Ile
25330	25335	25340
Glu Ile Ile His Glu	Gly Leu Asp Tyr Tyr	Ala Leu His Ile Arg
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Asp Thr Leu Pro Glu	Asp Thr Gly Tyr Tyr	Arg Val Thr Ala Thr
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Asn Thr Ala Gly Ser	Thr Ser Cys Gln Ala	His Leu Gln Val Glu
25375	25380	25385
Arg Leu Arg Tyr Lys	Lys Gln Glu Phe Lys	Ser Lys Glu Glu His
25390	25395	25400
Glu Arg His Val Gln	Lys Gln Ile Asp Lys	Thr Leu Arg Met Ala
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Glu Ile Leu Ser Gly	Thr Glu Ser Val Pro	Leu Thr Gln Val Ala
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Lys Glu Ala Leu Arg	Glu Ala Ala Val Leu	Tyr Lys Pro Ala Val
25435	25440	25445
Ser Thr Lys Thr Val	Lys Gly Glu Phe Arg	Leu Glu Ile Glu Glu
25450	25455	25460
Lys Lys Glu Glu Arg	Lys Leu Arg Met Pro	Tyr Asp Val Pro Glu
25465	25470	25475
Pro Arg Lys Tyr Lys	Gln Thr Thr Ile Glu	Glu Asp Gln Arg Ile
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Val	Met	Pro	Leu	Pro	Arg	Ile	Thr	Asp	Gln	Tyr	Arg	Pro	Lys	Trp
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Pro	Arg	Arg	Arg	Ser	Leu	Gly	Asp	Ile	Ser	Asp	Glu	Glu	Leu	Leu
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Arg	Leu	Arg	Leu	Glu	Glu	Glu	Leu	Glu	Leu	Gly	Phe	Ser	Ala	Ser
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Pro	Pro	Ser	Arg	Ser	Pro	Pro	His	Phe	Glu	Leu	Ser	Ser	Leu	Arg
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Tyr	Ser	Ser	Pro	Gln	Ala	His	Val	Lys	Val	Glu	Glu	Thr	Arg	Lys
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Asn	Phe	Arg	Tyr	Ser	Thr	Tyr	His	Ile	Pro	Thr	Lys	Ala	Glu	Ala
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Ser	Thr	Ser	Tyr	Ala	Glu	Leu	Arg	Glu	Arg	His	Ala	Gln	Ala	Ala
25675					25680					25685				
Tyr	Arg	Gln	Pro	Lys	Gln	Arg	Gln	Arg	Ile	Met	Ala	Glu	Arg	Glu
25690					25695					25700				
Asp	Glu	Glu	Leu	Leu	Arg	Pro	Val	Thr	Thr	Thr	Gln	His	Leu	Ser
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Ser	Arg	Pro	Gln	Pro	Ala	Glu	Glu	Tyr	Glu	Asp	Asp	Thr	Glu	Arg
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Phe	Asp	Ile	Phe	Ser	Arg	Tyr	Glu	Ser	Met	Lys	Ala	Ala	Leu	Lys
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Val	Glu	Leu	Gln	Glu	Ser	Ser	Lys	Ile	His	Tyr	Thr	Asn	Thr	Ser
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Gly	Val	Leu	Thr	Leu	Glu	Ile	Leu	Asp	Cys	His	Thr	Asp	Asp	Ser

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25960	Ala Ser Gln Arg Arg	25965	Asp Glu Glu Val Pro	25970	Arg Ser Val Phe Pro
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Cys	Lys	Leu	Thr	Ile	Lys	Ala	Ile	Lys	Asp	Thr	Glu	Ala	Gln	Lys
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Ser	Met	Ser	Ala	Gln	Ser	Met	Ser	Ser	Met	Gln	Glu	Ser	Phe	Val
26785					26790					26795				
Glu	Met	Ser	Ser	Ser	Ser	Phe	Met	Gly	Ile	Ser	Asn	Met	Thr	Gln
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Leu	Glu	Ser	Ser	Thr	Ser	Lys	Met	Leu	Lys	Ala	Gly	Ile	Arg	Gly

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Ile Pro Pro Lys Ile	Glu Ala Leu Pro Ser	Asp Ile Ser Ile Asp
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Glu Gly Lys Val Leu	Thr Val Ala Cys Ala	Phe Thr Gly Glu Pro
26845	26850	26855
Thr Pro Glu Val Thr	Trp Ser Cys Gly Gly	Arg Lys Ile His Ser
26860	26865	26870
Gln Glu Gln Gly Arg	Phe His Ile Glu Asn	Thr Asp Asp Leu Thr
26875	26880	26885
Thr Leu Ile Ile Met	Asp Val Gln Lys Gln	Asp Gly Gly Leu Tyr
26890	26895	26900
Thr Leu Ser Leu Gly	Asn Glu Phe Gly Ser	Asp Ser Ala Thr Val
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